



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Michelle Baker

SERIAL NO.: 09/209,162

GROUP ART UNIT: 2776

FILED: December 10, 1998

EXAMINER: C. Paula

FOR: Electronic Mail Software  
with Modular Integrated  
Authoring/Reading Software  
Components

ATT'Y DOCKET: BAK-004

Honorable Commissioner of Patents  
and Trademarks  
Washington, D.C. 20231

DECLARATION UNDER 37 CFR §1.131

I, Michelle Baker, declare that:

I conceived of the invention claimed in the present application prior to the effective dates of the references cited against the claims. The following documents numbered Exhibits 1-40 show that I was in possession of the invention in early 1997, long prior to the effective dates of the references, and that I diligently pursued the invention up until August 1998 at which time I turned over my disclosure to my patent attorneys for the preparation of the instant application which was ultimately filed in December 1998.

Exhibit 1 is a excerpt of the phase 2 portion of my NSF proposal which was filed in February 1997. The last two pages of this excerpt describe the essence of the invention claimed herein.

Exhibit 2 is an abstract taken from the NSF website indicating that my proposal was granted in September 1997 for funding between November 1997 and April 1999.

The following exhibits are taken from my notebooks/diaries which I kept in steno books. The entries are annotated with pink, blue and green notes which I added to the entries for purposes of this declaration. The entries marked "KidCode" refer to the invention claimed in the present application. There are entries for substantially every day. Exemplary entries, approximately one per week, are listed below.

During 1997 and 1998, I was working on three other inventions, referred to as BAK-001, BAK-002, and BAK-003. Each of these other inventions was the subject of a U.S. Patent application. BAK-001 issued into two patents: U.S. Patent Number 5,715,416 and U.S. Patent Number 6,002,401. BAK-002 and BAK-003 issued into U.S. Patent Number 6,076,083 and U.S. Patent Number 6,073,089, respectively. During 1997 and 1998, I was also working on setting up, funding, and staffing my company "Intellinet". Thus, some of the entries provided below will make reference to these other projects as well as still other matters.

It may be helpful in understanding some of the entries that the KidCode project was initially envisioned as a learning tool for school children. As the work progressed and after discussing it with my patent attorneys, it became clear that the invention had broader applications. With few exceptions, the following documents speak for themselves. Where a person's name and telephone number is listed, it generally indicates that I had a telephone conversation with that person regarding the subject matter indicated.

Exhibit 3 is three pages from my notebook/diary showing entries for September 3 and 4 1997. John Ferro was the technology director of District 2 in NYC. I spoke to him about a collaboration for a proposal to the NYS Technology Literacy Challenge Fund to finance work with KidCode in his school district. "Ellie" refers to an ongoing discussion with Ellie Sawits about the terms of her employment as CFO for my company Intellinet Inc.

Exhibit 4 is two pages from my notebook/diary showing entries for September 8, 1997. "R.J Miller" refers to an appointment for a haircut. "Pablo" refers to Pablo Tapia, CEO of Apogee Networks with whom I discussed a potential licensing agreement of the BAK-003 invention from Intellinet to Apogee. Sally Nerlove was the grants program officer for the KidCode grant. I spoke to her

concerning the addition of REU funds to supplement the KidCode grant.

Exhibit 5 is two pages from my notebook/diary showing entries for September 18, 1997. "Judy" refers to Judi Cohen with whom I spoke to set up a meeting for Thursday Nov 2nd; probably to work with children on the KidCode grant.

Exhibit 6 is one page from my notebook/diary showing entries for September 22, 1997. "Babette" refers to Babette Moeller and including her in the meeting with Judi Cohen Nov 2nd. Ray Fitzgerald is a lawyer who was helping me with negotiations on Ellie Sawits employment agreement and terms of engagement of Oxbridge for raising private capital for Intellinet Inc.

Exhibit 7 is two pages from my notebook/diary showing entries for October 2, 1997.

Exhibit 8 is two pages from my notebook/diary showing entries for October 13, 1997.

Exhibit 9 is two pages from my notebook/diary showing entries for October 29, 1997. "Catherine" refers to Catherine Evans, an employee of Intellinet to do bookkeeping, general office help, and manage the process of acquiring images for KidCode. Jack Goldman was with Oxbridge at this time. We spoke about whether there was



any way to bridge the gap in what Oxbridge wanted and what Intellinet could afford to contract. NY City Coord Group and NY State Ed info - I believe I was trying to get data for a market analysis for the KidCode business plan.

Exhibit 10 is two pages from my notebook/diary showing entries for November 4, 1997.

Exhibit 11 is one page from my notebook/diary showing entries for November 11, 1997. I had a meeting with Jane Coleman about working with Teaching Matters, a non-profit organization working with technology in NYC schools, to have them use KidCode in their work in the schools.

Exhibit 12 is one page from my notebook/diary showing entries for November 17, 1997. Bruce Bernstein had a software firm. We discussed the possibility of subcontracting some KidCode programming to his firm. Ann Cassidy was a KidCode programmer

My handwritten notebooks for the end of November 1997 through January 1998 cannot presently be found. However, I have saved copies of all of my electronic mail for the period.

Exhibit 13 is six pages of excerpts from my saved email outbox covering the period from November 27, 1997 through February 1, 1998.

Exhibit 14 is four pages from my notebook/diary showing entries for February 6, 1998. Ann Vartanian is former Nickelodeon Marketing Director. We had discussions concerning a possible collaboration for marketing of KidCode. The next two pages are notes from programming the scrolling image window for KidCode Rebus game. Ann Cassidy and Susie Ryback were KidCode programmers.

Exhibit 15 is one page from my notebook/diary showing entries for February 13, 1998.

Exhibit 16 is three pages from my notebook/diary showing entries for February 23, 1998.

Exhibit 17 is three pages from my notebook/diary showing entries for March 2, 1998.

Exhibit 18 is two pages from my notebook/diary showing entries for March 9 and 10, 1998.

Exhibit 19 is five pages from my notebook/diary showing entries for March 18, 1998.

Exhibit 20 is one page from my notebook/diary showing entries for March 25, 1998. "Alison" refers to Alison Deighton, a friend. I called to interest her in investing in KidCode.

Exhibit 21 is two pages from my notebook/diary showing entries for April 3, 1998.

Exhibit 22 is one page from my notebook/diary showing entries for April 8, 1998.

Exhibit 23 is three pages from my notebook/diary showing entries for April 14, 1998.

Exhibit 24 is six pages from my notebook/diary showing entries for April 21 and 22, 1998.

Exhibit 25 is four pages from my notebook/diary showing entries for April 29, 1998.

Exhibit 26 is three pages from my notebook/diary showing entries for May 5, 1998. Everything on these pages refer to contacts and conversations regarding possible collaborators for the KidCode proposal to US Dept of Ed.

Exhibit 27 is three pages from my notebook/diary showing entries for May 15, 1998. Graciela Narcho discussed administrative issues re: KidCode grant from NSF. Maria Lucca was an acquaintance with expertise in media and licensing with advice on how to handle purchasing of images for use in KidCode

Exhibit 28 is two pages from my notebook/diary showing entries for May 22 and 25, 1998.

Exhibit 29 is three pages from my notebook/diary showing entries for May 29, 1998.

Exhibit 30 is one page from my notebook/diary showing entries for June 6, 1998.

Exhibit 31 is two pages from my notebook/diary showing entries for June 14 and 15, 1998.

Exhibit 32 is three pages from my notebook/diary showing entries for June 22 and 23, 1998.

Exhibit 33 is two pages from my notebook/diary showing entries for June 26, 1998.

Exhibit 34 is three pages from my notebook/diary showing entries for June 30 through July 14, 1998. Mike Risko was the administrator of the EDC/CCT subcontract for KidCode. Nancy Ross was a KidCode programmer. Susie Rybak was a KidCode programmer. The absence of consecutive entries is due to the summer holidays.

Exhibit 35 is three pages from my notebook/diary showing

entries for July 17, 1998.

Exhibit 36 is five pages from my notebook/diary showing entries for July 20, 1998.

Exhibit 37 is one page from my notebook/diary showing entries for July 27, 1998.

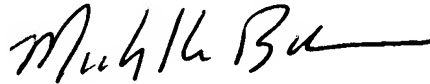
Exhibit 38 is two pages from my notebook/diary showing entries for August 4, 1998.

Exhibit 39 is four pages from my notebook/diary showing entries for August 10, 1998.

Exhibit 40 is two pages from my notebook/diary showing entries for August 12, 1998. On this day I spoke with patent attorney Tom Gallagher about the KidCode project. I explained the project as an email program with game modules for children. The initial game was a rebus game. During the conversation, Tom mentioned some semi-educational games that he had seen recently (You Don't Know Jack, etc.).

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful, false statements and

the like so made are punishable by fine or imprisonment, or both, under Section 1001 of title 18 of the United States Code and that such willful, false statements may jeopardize the validity of the application or document or any patent or registration resulting therefrom.

A handwritten signature in black ink, appearing to read "Michelle Baker", with a long horizontal stroke extending to the right.

July 12, 2002

Michelle Baker

EXHIBIT 1

**NATIONAL SCIENCE FOUNDATION**  
**SBIR PHASE II PROPOSAL COVER PAGE**  
**Small Business Innovation Research**

<b>TOPIC NO.</b> <b>25</b>	<b>SUBTOPIC LETTER</b> (If any) <b>b</b>	<b>TOPIC TITLE</b> <b>Education and Human Resources</b>	
<b>PROPOSAL TITLE</b> <b>Kidcode: software for young children's exploration of symbolic representation, Phase II</b>			
<b>NAME OF PROPOSING SMALL BUSINESS CONCERN</b> <b>Intellinet Inc.</b>		<b>ADDRESS (Including ZIP CODE)</b> <b>325 Riverside Drive</b> <b>New York, N.Y. 10025</b>	
<b>EMPLOYER IDENTIFICATION NUMBER (EIN) OR</b> <b>TAXPAYER IDENTIFICATION NUMBER (TIN)</b> <b>13-3727963</b>			
<b>REQUESTED AMOUNT</b> <b>\$ 299,991</b>	<b>PROPOSED DURATION</b> <b>24-months 18 months</b>	<b>PERIOD OF PERFORMANCE</b> <b>11/1/97 - 4/30/99</b>	
<b>THE SMALL BUSINESS CONCERN CERTIFIES THAT:</b>			<b>Y/N</b>
1. It is a small business as defined in the SBIR Phase I - Phase II Instruction Guide.			<b>Y</b>
2. It qualifies as a socially and economically disadvantaged business as defined in SBIR Phase I - Phase II Instruction Guide. FOR STATISTICAL PURPOSES ONLY			<b>N</b>
3. It qualifies as a women-owned business as defined in SBIR Phase I - Phase II Instruction Guide. FOR STATISTICAL PURPOSES ONLY			<b>Y</b>
4. NSF is the only Federal agency that has received this proposal (or an overlapping or equivalent proposal) from the small business concern. If No, you must disclose overlapping or equivalent proposals and awards as required by SBIR Phase I - Phase II Instruction Guide. (See Section Part III, Subsection D.1(I))			<b>Y</b>
5. A minimum of one-half of the research will be performed by this firm in Phase II.			<b>Y</b>
6. The primary employment of the principal investigator will be with this firm at the time of award and during the conduct of the research.			<b>Y</b>
7. It will permit the government to disclose the title and technical abstract page, plus the name, address and telephone number of a corporate official if the proposal does not result in an award to parties who may be interested in contacting you further information or possible investment.			<b>Y</b>
8. It will comply with the provisions of the Civil Rights Act of 1964 (P.L. 88-352) and the regulations pursuant thereto.			<b>Y</b>
<b>PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR</b>			
<b>NAME</b> <b>Michelle Baker</b>		<b>TITLE</b> <b>President</b>	
<b>SOCIAL SECURITY NO.</b> <b>054-50-2485</b>		<b>TELEPHONE NO.</b> <b>( 212 ) 663-7026</b>	
<b>E-MAIL ADDRESS</b> <b>mbaker@interport.net</b>		<b>FAX NO.</b> <b>( 212 ) 663-7026</b>	
<b>NAME</b> <b>Michelle Baker</b>		<b>TITLE</b> <b>President</b>	<b>TELEPHONE NO.</b> <b>( 212 ) 663-7026</b>
<b>COMPANY OFFICER (FOR BUSINESS AND FINANCIAL MATTERS)</b>			
<b>OTHER INFORMATION</b>			
<b>PRESIDENT'S NAME</b> <b>Michelle Baker</b>		<b>YEAR FIRM FOUNDED</b> <b>1992</b>	<b>NUMBER OF EMPLOYEES</b> <b>AVERAGE PREVIOUS 12 MO.: 4</b> <b>CURRENTLY: 2</b>

**PROPRIETARY NOTICE** See Part III, Subsection D.1 for instructions concerning proprietary information.  
 (Check here ☒ if proposal contains proprietary information.)

**NOTE:** The signed Certification Page must be included immediately following this Cover Page with the original copy of the proposal only.

Proposal Page No. 1




## CERTIFICATION PAGE

### Certification for Principal Investigators and Co-Principal Investigators

I certify to the best of my knowledge that:

- (1) the statements herein (excluding scientific hypotheses and scientific opinions) are true and complete, and
- (2) the text and graphics herein as well as any accompanying publications or other documents, unless otherwise indicated, are the original work of the signatories or individuals working under their supervision. I agree to accept responsibility for the scientific conduct of the project and to provide the required progress reports if an award is made as a result of this application.

I understand that the willful provision of false information or concealing a material fact in this proposal or any other communication submitted to NSF is criminal offense (U.S. Code, Title 18, Section 1001).

Name (Typed)	Signature	Date
PI/PD Michelle Baker		1/29/97
Co-PI/PD		
Co-PI/PD		
Co-PI/PD		
Co-PI/PD		

### Certification for Authorized Organizational Representative or Individual Applicant

By signing and submitting this proposal, the individual applicant or the authorized official of the applicant institution is: (1) certifying that statements herein are true and complete to the best of his/her knowledge; and (2) agreeing to accept the obligation to comply with NSF award terms and an award is made as a result of this application. Further, the applicant is hereby providing certifications regarding Federal debt status, debarment and suspension, drugfree workplace, and lobbying activities (see below), as set forth in the *Grant Proposal Guide (GPG)*, NSF 95-27. Willful provision of false information in this application and its supporting documents or in reports required under an ensuing award is a criminal offense (U.S. Code, Title Section 1001).

In addition, if the applicant institution employs more than fifty persons, the authorized official of the applicant institution is certifying that the institution implemented a written and enforced conflict of interest policy that is consistent with the provisions of *Grant Policy Manual* Section 510; that to the best his/her knowledge, all financial disclosures required by that conflict of interest policy have been made; and that all identified conflicts of interest will be satisfactorily managed, reduced or eliminated prior to the institution's expenditure of any funds under the award, in accordance with the conflict of interest policy. Conflicts which cannot be satisfactorily managed, reduced or eliminated must be disclosed to NSF.

#### Debt and Debarment Certifications (If answer "yes" to either, please provide explanation.)

Is the organization delinquent on any Federal debt? Yes ☐ No ☒

Is the organization or its principals presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal Department or agency? Yes ☐ No ☒

#### Certification Regarding Lobbying

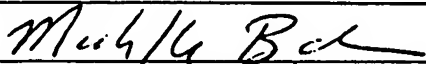
This certification is required for an award of a Federal contract, grant or cooperative agreement exceeding \$100,000 and for an award of a Federal loan a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000.

#### Certification for Contracts, Grants, Loans and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements and that all subrecipients shall certify and disclose

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

AUTHORIZED ORGANIZATIONAL REPRESENTATIVE	SIGNATURE	DATE
NAME/TITLE (TYPED) Michelle Baker		1/29/97
TELEPHONE NUMBER (212) 663-7026	ELECTRONIC MAIL ADDRESS mbaker@interport.net	FAX NUMBER (212) 663-7026

National Science Foundation  
Small Business Innovation Research Program

**PROJECT SUMMARY**

NSF PROPOSAL NO.

NAME OF FIRM <b>Intellinet Inc.</b>	
ADDRESS <b>325 Riverside Drive New York, N.Y. 10025</b>	
PRINCIPAL INVESTIGATOR (NAME AND TITLE) <b>Michelle Baker, President</b>	
TITLE OF PROJECT <b>Kidcode: software for young children's exploration of symbolic representation, Phase II</b>	
TOPIC TITLE <b>Education and Human Resources</b>	TOPIC NUMBER AND SUBTOPIC LETTER <b>25 b</b>
<p style="text-align: center;"><b>PROJECT SUMMARY</b></p> <p>This Small Business Innovative Research Phase II project will implement prototype software and develop teacher resource materials for a computer program that allows children in the age range 5-10 years to explore symbolic representations. In our Phase I research we developed a sequence of two-person games to be set within the context of an electronic mail system that satisfy our objectives with respect to children's interest and their ability to understand and play independently. Each game is genuinely enjoyed by at least some cohort of the target age range and all children in the evaluation exhibited delight in at least one game as expressed by their level of interest and/or requests for repeated play. Moreover, there is evidence that, taken together, the games improve the children's facility with symbolic processing.</p> <p>In Phase II we will:</p> <ol style="list-style-type: none"> <li>1. complete implemntation of a software prototype for the four KidCode games designed in Phase I</li> <li>2. develop teacher resource materials to supplement the software.</li> <li>3. develop animated demos and an on-line help facility.</li> <li>4. evaluate and refine the software, help facility, and teacher resource materials.</li> </ol> <p style="text-align: center;"><b>Potential Commercial Applications of the Research</b></p> <p>The KidCode games and email software have commercial applications in the markets for both home and school educational software. KidCode is designed make use of local area computer networks and the Internet. At present, with the exception of Web pages on the Internet, little or no educational software exists that takes advantage of a networked computing environment. Moreover, The games address a real need in elementary mathematics curriculum and will appeal to teachers of elementary aged children. To our knowledge, there is no other software explicitly designed to encourage children in an exploration of symbolic representation.</p> <p>We will also consider partnering with a distributor of board games or toys to market a board game style version of the KidCode games. Our evaluations showed that both children and adults had fun playing with the paper material to the extent that many of the adults who played the game suggested that we skip the software and market the game materials that we have already developed. Because the games are interactive, visually and aurally attractive, humorous, and colorful we believe that they can be developed into a fun and intriguing television game show for kids.</p>	

#### **d. Synopsis of Phase I Research Results**

In our Phase II research we developed a sequence of two-person games to be set within the context of an electronic mail system. The games are intended to help elementary aged children understand symbolic representation as it relates to communication and mathematics. Our Phase I research focused on the design and evaluation of games centered on the theme of codes and secret messages for children in grades from first through fourth grades.

Overall, we have found that the theme of coding and secret messages is an excellent venue for learning about symbolic representation. The context of interactive communication is very appealing to the children we have worked with. They liked the idea that their communications were secret and were clearly amused as they anticipated the decoding of their messages. They found many opportunities for humor as partners misinterpreted some of the codings and we had many lively sessions in which coder, decoder and evaluators shared in frequent laughter.

The most important outcome of the research is that we have designed four games that can be set in an email context and that satisfy our objectives with respect to children's interest and their ability to understand and play independently. Each game is genuinely enjoyed by at least some cohort of the target age range and all children in the evaluation exhibited delight in at least one game as expressed by their level of interest and/or requests for repeated play. Moreover, there is evidence that, taken together, the games improve the children's facility with symbolic processing.

The main findings of the evaluation research are:

- The games help children (and adults) to get over anxiety associated with tasks presented as mathematics. Although all subjects who were told that they would be playing a series of math games approached the first game as if it were a test, their preoccupation with "getting the right answer" gradually dissolved. They relaxed as they discovered that there is usually not a correct method for coding a message and that what really matters is that the recipient can understand the message.
- The games build on one another and increase in abstraction and/or complexity. Some children had a great deal of trouble when the games were not presented in sequence and games with higher levels of coding abstraction were played without the benefit of experience with earlier games.
- The games seem to improve the children's competence with symbolic processing. All children who played the games in sequence were able to understand and play each game independently after being guided through one or two examples. Children seemed to learn more and learn more quickly when they go through the entire sequence of materials as opposed to being presented with material from within the sequence.
- Even children who can not yet read can understand and play the games independently if we assume that textual material is read to them (by providing sound in the computer program).
- Older children who have had some exposure to symbolic language are more readily able to utilize the coding models so that their learning curve rises more rapidly and after fewer trials. Younger children need more trials and more systematic instruction. However, once they grasp the coding model used in a game, they are easily able to use what they have learned and apply it to new situations.

- Some forms of instruction are much more effective than others. In particular, we found that walking through an example of game play was far better than verbal directions for how to play. This suggests that a computer program could provide adequate instruction using small demos to illustrate the play for each game.
- Developmental readiness is an important determinant of the children's level of interest for some of the games. Older children sometimes became bored with games that fascinated the younger children. However, the rebus game was enjoyed by all children (and adults) regardless of age or level of development.
- There are specific age and gender differences in how the children approach the tasks. Most strikingly, boys tend to view the games as though this was a competition, while girls tended to cooperate more readily to help their partner succeed. Though less prominent, younger children also tended to work more cooperatively while older children tended to build in competition even though that was not part of the instruction or the task.
- When children worked cooperatively, the assistance they offered one another was often more valuable than the direct instruction given by the evaluator.

For each game, we crafted materials of paper and poster board with varied examples at different levels of difficulty that could be used for multiple rounds of play. These materials were used throughout the performance period in evaluations with three adults and fourteen children in the first through fourth grades (ages 5-10 yrs.) from a wide range of socioeconomic backgrounds. As the research progressed, the materials were revised or expanded in order to address issues that arose during the evaluation sessions. Some of the games were modified considerably after observing children play the games.

The most important outcome of the research is that we have designed four games that can be set in an email context and that satisfy our objectives with respect to children's interest and their ability to understand and play independently. Each game is genuinely enjoyed by at least some cohort of the target age range and all children in the evaluation exhibited delight in at least one game as expressed by their level of interest and/or requests for repeated play. Moreover, there is evidence that, taken together, the games improve the children's facility with symbolic processing. We have also constructed a prototype of the proposed software using Macromedia *Director* which includes materials from one of the games in a simulated email environment.

#### **d.1. Identification and Significance of Problem**

KidCode is intended to help children develop an understanding of symbolic representation through experience with a wide variety of codes and coded representations. The KidCode games will be set within the context of an electronic mail system to encourage kids to understand symbolic representation as it relates to communication. With KidCode, kids can construct, translate, and manipulate symbols for "math talk". We want them to know that there is meaning to math and that math is nothing without the message but that the languages can be interesting and fun and ultimately powerful.

The games are designed to build confidence and a sense of ownership by kids for the languages and the messages that they construct. We have found that the games improve children's skills with particular representations used commonly in mathematics. It is our further aim for the games to develop children's conscious understanding of symbolic representation and confidence in their ability to translate any representation to retrieve its underlying meaning. Our work thus far suggests that experience with the KidCode games can help children develop a more general understanding of symbolic representation. We

hope that improved understanding and competence with various kinds of representations will give children a foundation so that they are not intimidated when presented with a complex looking mathematical formula and so that they consciously experiment with alternative representations when asked to solve a mathematics problem. Specifically we intend that the games will lead to an understanding that,

- symbols can be used to represent concrete objects, spatial location, actions, ideas, etc.;
- mathematical notation consists of a collection of languages constructed by people;
- all parties involved in a coded communication must agree on and understand a shared set of rules in order for communication to occur;
- specialized languages can be used to describe the physical world with greater precision than English words;
- notations or codes can be made up arbitrarily but that some notations are better than others.

#### **d.2. Background and Technical Approach**

The ideas for KidCode arose out of studies of educational research that indicate that children's difficulty with mathematics in school arises from the failure to develop conceptual links between mathematics as a symbol system and mathematical concepts that can be used to describe the physical world. (e.g. Ginsburg, 1989) Whereas the development of mathematical thinking in young children and skill in basic counting and arithmetic can be quite advanced when posed in real world settings, their application in school math has seemed limited and often, resistant to further development. Research on children's mathematics thinking has shown that understanding of basic mathematical concepts generally developed well before children's facility with symbolic representation. Preschool children, who cannot yet read are usually quite competent in using mental math to solve simple arithmetic problems requiring addition and subtraction. However, young elementary aged children have generally not developed an ability to use symbols. Few first graders are able to read upon entering school and their experience with symbolic processing is very limited. Nevertheless, until recently they have been required to use to use symbols to represent relatively abstract mathematical ideas.

The result of emphasizing symbolic math before the children develop competence with symbolic processing has been negative. This is where children begin to view school math as separate and unrelated to anything in their experience. In studies of children who perform poorly in mathematics at school, it was found that the same children could solve problems with ease if they were presented in context and without recourse to paper and pencil. Related research has shown that children's performance on mathematical problem solving tasks actually declined after a few years of schooling. Children upon entering school showed good insight relating arithmetic to real situations but by the ages of 9 or 10 were trying to solve word problems by resorting to superficial strategies such as "guess the operation" or "find the numbers and add".

In response, the NCTM standards of 1989 proposed a redirection of elementary mathematics curricula towards concrete manipulation and problem solving, towards a broader understanding of mathematics concepts like patterns, geometry, and data analysis and away from symbol manipulation. Intellinet's Kidcode is designed to supplement the National Council of Teachers of Mathematics (NCTM) curriculum standards by addressing the need to develop conceptual links between concrete mathematical activities and mathematics as a language. It provides children with the opportunity to explore mathematics as one of many symbol systems that have been built for the purposes of communication. KidCode will enable children to gain experience with many kinds of symbolic representations by constructing systems of their own for the purposes of sending coded messages to their peers. Message authoring can consist of text, graphics, and even animations. Similarly, with KidCode children can advance from an understanding of symbolic representation of object/noun type entities for text and

simple pictures to coded representations of spatial relationships and, finally, to representation of operator actions. Thus KidCode can provide an important supplement for the curriculum throughout the elementary grades.

### d.3. Selected Bibliography

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D. Pimm, *Symbols and Meanings in School Mathematics*. Routledge Press, London. 1995.

D. Scott, B. Williams, and K. Hyslip. Mathematics as communication: journal writing in 2nd grade. *Childhood Education*, Vol. 69, No. 1, Fall 1992. pp 15-18.

E.F. Strommen and G.L. Revelle, Research in interactive technologies at the Children's Television Workshop, *Educational Research and Development*, Vol 38, No. 4, 1990, pp 65-80.

U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, *Survey on Advanced Telecommunications in U.S. Public Schools, K-12*, FRSS 57, 1995; *Advanced Telecommunications in U.S. Public Schools, K-12*, FRSS 51, NCES 95-731.

### **e. PHASE II RESEARCH OBJECTIVES**

In Phase II we will:

1. complete development of a software prototype for the four games - Rebus, Text-in-Grid, Coded Puzzle, and Connect-the-Dots.
2. develop teacher resource materials to supplement the software.
3. develop animated demos and an on-line help facility.
4. evaluate and refine the software, help facility, and teacher resource materials.

#### **e.1. Develop prototype software**

Prototype software development consists of the following subtasks:

- electronic mail client
- MIME mail handler
- message authoring components for each of the four games - Rebus, Text-in-Grid, Coded Puzzle, and Connect-the-Dots.
- game templates for each of the four games
- image library

#### **e.2. Teacher resource materials**

The principal objectives for the teacher resource materials and use guides include:

- Provision of an Introductory section which clearly conveys the overall learning objectives of the KidCode software and the role of the software in mathematics learning.
- Provision of research data which delineates the importance of providing children with experiences and activities which develop, reinforce and enhance their abilities to use symbolic representations as a language, particularly as a prerequisite for the development of mathematical skill.
- Provision of a curriculum guide which simply and clearly delineates the purposes, uses and applications of the software for the classroom or computer laboratory. This guide will help teachers to understand how best and where to mesh this program into their existing curriculum. It will also provide specific coordination with the TERC materials, *Investigations in Number, Data, and Space* and materials designed by Marilyn Burns which are in use in most public and private elementary school settings across the country.
- Provision of an instructional manual that explains the basic use of the software including summary, getting started, product in detail and student extension materials.

#### **e.3. On-line help**

We will design a on-line help system and create associated text, audio and graphics materials to implement the following types of help:

- Basic Help - Our Phase I research showed that demo walkthroughs of each game were the most effective form of instruction with the children in the target age range. Animated "movies" will be created to show beginning users how to use the email client and each of the KidCode games.
- Topical and User Initiated Help - We will design a set of topics and questions along with text, graphics, and audio files to provide brief explanations for each topic and question defined.
- Situational and System Initiated Help - we will index questions and topics described above with the program scenarios in which they are likely to occur. This will allow the program to detect problems in some cases and suggest appropriate help.

#### **e.4 .Evaluation**

We will evaluate both the teacher resource materials and the prototype software with respect to the following objectives:

##### **e.4.1. EVALUATION OBJECTIVES: TEACHER RESOURCE MATERIALS**

The main purpose of the teacher resource materials evaluation is to insure that these materials are designed in such a way that they are comprehensible and appealing to teachers. The materials will be considered to be comprehensible and appealing if the following conditions are met:

- teachers understand the overall KidCode learning goals and how they relate to math education research on (a) the development of symbolic thinking, (b) the difficulty children have relating symbolic representations to math knowledge, (c) the effects of experience with varied forms of representation;
- teachers understand the specific KidCode learning goals for each game and how they intersect with NCTM & TERC curriculum guides;
- teachers can quickly and easily use the program after looking over the resource materials. Teachers who are familiar with computer use should require less than 1 hour of self-training with the manual and program in order to use the program competently;
- teachers choose to use KidCode provided or TERC recommended supplementary concrete/physical materials in their classrooms to supplement KidCode game play;
- teachers expand on existing curriculum materials and generate new activities around the use of the KidCode software.

##### **e.4.1. EVALUATION OBJECTIVES: PROTOTYPE SOFTWARE:**

The main purpose of the formative research on the software prototype is to insure the clarity and appeal of the user interface. This research builds on the formative research conducted during Phase I, which helped to establish the comprehensibility, appeal, and age appropriateness of the content and basic activities of the KidCode games. The software prototype will be considered to be clear and appealing if it satisfies the following conditions:

- most children in some cohort of the target age range easily understand the objective of their interaction with the software as being to code, decode, and communicate their creations.
- controls (i.e., windows, buttons, dialog boxes) can be easily understood and manipulated by most of the children in some cohort of the target age range after no more than one or two sessions with an instructor.
- many (i.e., at least half) of the children in some cohort of the target age range are genuinely intrigued and take the initiative to explore different software features.



## **f. PHASE II RESEARCH PLAN**

**In this section we outline a detailed research plan for each of the objectives of the Phase II research that were outlined in section (e) above.**

### **f.1. Develop prototype software**

In Phase II we will focus on two main areas of software functionality:

- **electronic mail client** (e.g. send, read, and browse messages)
- **KidCode message authoring** including Rebus, Text-in-Grid, Coded Puzzle, and Connect-the-Dots.

In addition, we will create two types of supporting materials:

- **game templates**
- **image library**

#### **f.1.a. ELECTRONIC MAIL**

The KidCode electronic mail component will be a standard email client with added capabilities to handle specially defined MIME message types. The email client will consist of an in box, an out box, an administrative component, and message management functions (e.g. send, read, save, delete, print) that work on entities from the in and out boxes. The administrative component is used to set up an address book to maintain aliases and addresses of message recipients. This is especially important for younger children who cannot be expected to manage message addressing. Other administrative functions may include setting game levels, turn audio on or off, turn situational help on or off, etc. Icons and toolbars will be designed to be "child friendly" and will resemble those displayed in the KidCode video (October 1996).

The email component will use standard Internet mail protocols including SMTP, POP, and IMAP to ensure interoperability with all major commercial email systems. Using these protocols, the KidCode email client will be able to send and receive ASCII text across the Internet or local area networks to communicate with any protocol compliant email server and send messages to other email clients such as Eudora, AOL mail, Pine, elm, Exchange, etc. The email client will handle messages that are not ASCII text but rather are other MIME message types as attachments. Special x-application MIME types will be defined for the KidCode games and the email client will be constructed to interact with the KidCode message authoring component when a message defined as a KidCode MIME type is invoked. The email client will recognize KidCode MIME types and distinguish these messages with special icons as demonstrated in the KidCode video (October 1996). Functionality that distinguishes KidCode MIME types will be designed for extensibility so that additional games can be easily incorporated as addons to a KidCode email client.

Subsequent to Phase II, additional features will be added to the software. These include a bulletin board that can be used, for example, to post to and read messages from a shared classroom mailbox and native capabilities to handle other registered MIME message types. In addition a realtime chat-style messaging client capable of handling the KidCode games will be developed during Phase III.

#### **f.1.b. MESSAGE AUTHORIZING AND CODING UTILITIES**

The KidCode games developed in our Phase I research will be implemented as separate message authoring components which interact with the email client described above. In addition to a basic text editor that can be used to author standard ASCII messages, separate message authoring components will be designed for each of the KidCode games. These components will be invoked by the email client in response to user input and as a result of examining the MIME type of each message. A MIME-type handler will respond to signals from the email client, evaluate the message type, copy the message for

editing, and load the appropriate authoring component. (see diagram below) When it is invoked, the MIME-type handler will pass MIME message data structures from the email client's in or out boxes to the appropriate authoring component for display and authoring. The MIME-type handler will be designed for extensibility so that functionality for additional KidCode games can be easily added-on to a user's KidCode email client.

Message authoring components for the KidCode games will share a number of common modules including basic user interface features, audio features, and an image library. The shared component of the user interface will offer a uniform overall look-and-feel and functionality common to all the games including *send*, *save*, and *return\_to\_email*. Message authoring components will also share an image navigation module. This module will operate to display, sort, and navigate the images in the image library in a manner accessible to small children. Our Phase I research showed that, although children in the lower end of our target age range have a great deal of trouble when images are sorted by category, they are very competent navigating large numbers of images when the images are sorted by the words they are likely to represent. Each KidCode message authoring component will incorporate shared modules as needed.

A significant part of the projected Phase II work will be the compilation of an image library which includes a large selection of artwork, images, schematic drawings, and textual symbols. A part time administrative assistant will be given the responsibility for reviewing clipart libraries, and children's books to find appropriate images and gain copyright authorization for use in the software. We have also included funding for a artist to create additional original images, particularly for cases in which we cannot find or gain copyright authorization to sufficient numbers of images of a particular type. Images will be digitized, color reduced, and compressed as necessary to maximize program performance. During Phase II we expect to gather approximately one hundred images for the image library.

#### f.1.c. PLATFORM AND SOFTWARE DEVELOPMENT TIMETABLE

Software development will be divided into two efforts - (1) User Interface prototyping and (2) system architecture and coding. These two efforts will begin in the first month of Phase II research and will be carried out in parallel. We will use cross-platform development strategy and tools so that code is produced to run on both Apple and Wintel systems. User interface mockups and much of the front end development work will be done using Macromedia Director. Director has the advantage that the same source code can be compiled for either environment. In addition changes in a Director prototype, particularly, "look-and-feel" features, can be quickly and easily revised. The email client and underlying system architecture will be built using Sun Microsystems' Java, a platform independent programming language which runs on any system architecture without recompilation. Below is a detailed description of the programming tasks defined in the Milestone Chart (page xx).

##### **months 1-6**

User interface prototyping - Using Macromedia Director we will build mockups of the user interface for the three games that have not yet been prototyped - Text-in-Grid, Coded Puzzle, and Connect-the-Dots - and for selected examples for on-line help. During the same period and closely integrated with the user interface for the games, we will design and prototype the user interface to an on-line help facility for the software. These prototypes will be informally tested very early in the design process with a small number of children to ensure that they are understandable and easy to use. We expect to have completed and refined mockups, including detailed system specifications for both the user interface and the authoring components for the four games and on-line help by the twelfth month. This includes development of at least two templates and supporting materials for each game and eight to ten examples of help scenarios including text, graphics, and if

EXHIBIT 2



AWSFL008-DS3

## **NSF Award Abstract - #9710619**

### **SBIR PHASE II: KidCode: Software for Young Children's Exploration of Symbolic Representation**

**NSF Org DMI**

**Latest Amendment Date** September 17, 1997

**Award Number** 9710619

**Award Instrument** Standard Grant

**Program Manager** Sara B. Nerlove

DMI DIV OF DESIGN, MANUFAC & INDUSTRIAL INNOV  
ENG DIRECTORATE FOR ENGINEERING

**Start Date** November 1, 1997

**Expires** April 30, 1999 (Estimated)

**Expected Total Amount** \$309991 (Estimated)

**Investigator** Michelle Baker [michelle.baker@acm.org](mailto:michelle.baker@acm.org) (Principal Investigator current)

**Sponsor** Intellinet Inc

325 Riverside Drive  
New York, NY 10025 212/663-7026

**NSF Program** 5373 SMALL BUSINESS PHASE II

**Field Application** 0000099 Other Applications NEC

**Program Reference Code** 9102,9177,SMET,

### **Abstract**

Mathematics without the message devolves into mere manipulation of symbols. It is important to help children develop an understanding of symbolic representation through experience with a wide variety of codes and coded representations, yet there is no software explicitly designed to encourage children in an exploration of symbolic representation. This Small Business Innovation Research Phase II project from Intellinet will implement prototype software, Kidcode, and develop teacher resource materials for a computer program that allows children in the age range 5-10 years to explore symbolic representations. In the course of the Phase I research a sequence of two-person games to be set within the context of an electronic mail system was developed. These games satisfy the following objectives with respect to children's interest and their ability to understand and play independently: Each game is genuinely enjoyed by at least some cohort of the target age range, and all children evaluated exhibited delight in at least one game as expressed by their level of interest and/or requests for repeated play. Moreover, there is evidence that, taken together, the games improve the children's facility with symbolic processing. The Phase II plans include completion of the implementation of a software prototype for the four KidCode games designed in Phase I; development of teacher resource materials to supplement the software; development of animated demonstrations and an on-line help facility; and evaluation and refinement of the software, help facility, and teacher resource materials. The KidCode games and e-mail software have commercial applications in the markets for both home and school educational software. KidCode is designed make use of local area computer networks and the Internet. At present, with the exception of Web pages on the Internet, little or no educational software exists that takes advantage of a networked computing environment. Moreover, the games address a real need in elementary mathematics curricula and appeal to teachers of elementary-aged children and other adults as well. Possibilities outside of the classroom include development of a board game style version of the KidCode games and, because the games are interactive, visually and aurally attractive, humorous, and colorful, the development of an intriguing television game show for kids.

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You may also retrieve a text version of this abstract.

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Please report errors in award information by writing to: [award-abstracts-info@nsf.gov](mailto:award-abstracts-info@nsf.gov).

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Please use the browser back button to return to the previous screen.



**EXHIBIT 3**

Harry Snyel 666-7102

Sept 3

Personal

Manne Lumber - Bob 228-0900

James Layfield - hardware can make  
a screen tip tip but it will be white

John Fero (212) 828-3500 x 3538

Technology Literacy Challenge Fund - Kidcode

Sept 4 Thursday

Ellie - 362-9179

possible resolutions:

Indellmat

1.  $< 3$  yrs then  $[10 \times \text{earnings} - \text{salary}]$  else she ~~will~~ <sup>will not</sup>
2.  $10 \times \text{earnings}$  buyout + 1 yr to hold

Personal  
Lindsey - U of Chicago - \$100 gift pledge  
not yet received.

To do

KidCode

1. track down NYS Technology Literacy Challenge Grant R.F.P. - Lynn Reiss ~~not yet~~
2. develop business plan + proposal for PRI Market
3. design for KidCode

BAK003

4. track down aviation person to explore application of SigNet tech to air traffic control problems

5. find Java programmers for KidCode

6. contact Jack Goldman etc from Oxbridge } IntelNet



- 0000
- All Kidcode
7. Review DeCoder Software
  - 7.1 Review Greeno's groups coding work
  - 7.2 Revise KidCode paper
  8. Develop Business plan for KidCode based on image/ad sales idea

### To Do Categories

#### A. KidCode development

1. architecture & design
2. paper revision
3. programmer hiring & project management
4. business planning & commercialization
5. grants tracking - e.g. Tech Library

#### B. SyNet development

1. Pablo negotiations
2. initiate aviation study

BAK003

EXHIBIT 4

Sept 8 Monday

Cavaliers (212) 580-1755 Gil, Emmet

\$640 - Sept-Dec Rndgs

225 - week of Sept 8

\$865

8:55 - 4:00

pickup. drop off

Alex should bring lunch + mitt.

R.J. Miller 228-4672

Friday 12:30 - Phadra

Personal

Pablo - (201) 843-0505 x255 BAK003

bill

Natricket Electric 387.19

Marys

200

587.19

air line

270

857.19

Personal

Natricket Electric

1-888-444-NECO

Tenant applies with copy of lease agreement at  
office at Fairgrounds Rd. They will do work ready to  
close out account.

**Person**  
NYNEX (Nantucket) 1-800-980-9989

They put note on account that OK to transfer to Michael  
Spicer. We must call them to give credit into  
etc.

Media One

Media Workshop = professional development  
for teachers

Sally Nerlove - award has gone through  
starts Nov 1<sup>st</sup>

- important:

REUR -

will try to amend the

Kid Luck

Sally Nerlove - needs email or fax to adjust  
the short debt...

(703) 306-0337

Diane 325-8223 Nantucket Electric  
turn off by Endg if not paid

**Person**

EXHIBIT 5

Sept 18

## KidCode

NASA - Institute for Advanced Concepts  
"Darpa-like" org with grants at 900-500 k (1015 payd)  
(202) 358-1600 ← NASA Headquarters Main #  
~~Edna~~ Mike Weingarten (202) 358-1680  
Murry Hirschenbein (202) 358-4662  
Gottard - (on NASA Web pages)

Tim Bridges - Natchuck Plumber  
(508) 257-6941

## Person

Murphy's Toggery - Natchuck (508) 228-0437  
\$16.00 - alterations  
6.00 - shipping

\* Judy - Thursday 2nd ← until 3:30  
\* ⌈  
KidCode

87.  
87  
14  
54  
233  
54

\* Ken Warner — Person A

\* David Gordon - conference call BAK002  
[Monday]  
~~Friday~~ [Friday]

\* speak to Columbia

\* speak to Pablo - BAK003

\* revise Toronto paper - KidCode

\* get Ray to finish agreement

---

\* find software developers for KidCode

~~2~~ 2

EXHIBIT 6



Sept 22

Babe He 807-4205 - Kidcode

- Judy says Oct 2 anytime up to 3:30 ok

Pablo (201) 843-0505 x255 - BAK003

Ken Warner (212) 593-8000

(914) 834-8821

office

home

Personal

Call him next week.

Ray Fitzgerald

302-4900 man office

704-3400 Ray's office

Intellet

Call EDC to get new Kidcode subcontract  
Babe He will send work stmt. next  
week.

Ken Repp - CCT representative

grnt admin, statin

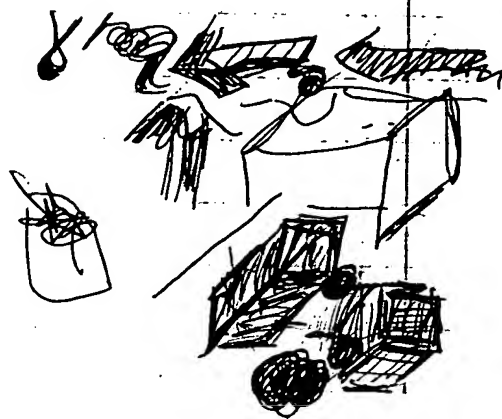
(617) 969-7100 x2251

Kidcode

EXHIBIT 7

Ira Rubenstein (518) 276-8458 WEST  
661-4700 x121 Oxbidge  
877-5702 home

1:15 - 1325 6<sup>th</sup> Ave - 53<sup>rd</sup> close  
5<sup>th</sup>



Oct 2

Pam Fitzgerald 877-6544

All Intellmet Genes

# Kydeule

4 symbol number system  
 teen play - different countries,  
 communicate and trade



G/N

-(A AND B)



-(George AND George  
 Doctor No College)

George can OR - George

1) Need to work out video  
 + what do



2) Call John Ferro + talk about role  
 RFP

3) State ed dept  
 office for curriculum instans,  
 new

Leeny Technology Grants

for workshop development +

4) Overview examples

EXHIBIT 8

Howard Gesner

725-5966

Fed \$7,000

State \$5,000

} All  
Personal

Monday Oct 13

MC

Notice for late payment of taxes<sup>1</sup> with letter  
sent to Clot Kopp.

Interport Communication 989-1128

Account spi - billing changed to Henry Etzkowitz  
Account maker. ~~being~~ paid thru 12/04/97  
a new invoice will be generated in Dec.

C&S Clinical Lab 800-624-8420

They have two separate bills for the same date  
with separate account numbers.

AE6930638-3 has been paid 74.05 ins.  
8.00 me.

AE6930638-1 is outstanding.

These bills appear to be for the same thing.  
He will check it out and submit to Empire  
Plan if necessary.

Home Depot

(914) 298-9200

Wappinger's Falls - returns desk  
they will mail it to me.

Milly  
Mileback

Dad work

1-800 938-6660

\$1250 x 5

= \$6,250

inc. October

Ren Chien - NY State Education

wrote rfp for Learning Technology Grants  
(718) 722-2784

Kirk Gale

Ellie 362-9179

DeKoning - yes

Jack Donahue Oxbridge  
661-4700 ~~102~~ 102

Intellect

EXHIBIT 9



Weeks. Oct 29

Catherine

721-3357

Krillade

721-3568 (fax)

Jack Goldman (203) 226-5846 (home)

One thing seems clear

time & effort is essential

He will talk to Fred to determine if  
there is anything else that can be  
done.

Intellmet

Personal

NonNicket Bank (508) 228-0580

Liz Verney, operations

01-01-0000008056

(She will straighten it out and report  
to TRW)

Parkway Mortgage Co.

Mr. Childress

1-800-836-2274

x256

Robert Hull

1-800-946-2111 x106

908-298-6193 (fax)

needs Intellmet Financials for last 2 yrs

W2 for Henry for last 2 yrs

} ICS

NY City Coord. Group All Kidcode

James Gaughan (518) 474-4715

NY State Ed Info

Mary Ann R. Awad ~~(518) 474-3302~~

~~474-7965~~

Document:

breaks down enrollment by grade/district  
for NY State

Key telephone # for

info about NY State Education!

EXHIBIT 10

Walter Burre - 854-7455

Spectrum Element Manager  
runs under Windows

BAK003

70  
7 510  
4900

Tues Nov 4

Jude - KidCode

where to go 1. need to develop workshop lesson plan  
& materials

2. teacher materials for KidCode  
demo & paper

3. templates for KidCode

Need to develop business plan  
workshop & sales strategy

On workshop plan

- (a) sample workshop materials &
  - where do we get these?
  - good models?

(b) brochure?

(c) work with NOTM?

Kirkland

On business plan

- (a) Board of Ed - how do they operate  
State vs City

(b) can we get any revenues from workshops?

maybe speak with Barbara Dubitsky about  
workshop ideas etc.

EXHIBIT 11

Tuesday 11-11-97

Jane Coleman - Teaching Matters } K. K. K. 11:30  
870-3505 11:15

Pablo - (201) 843-0505 x255

He needs to get me

- prod. info date of client

- min. 2 hours for client

BAK003

Tech Support

Marco Ungaro - PC Connect 800 800 0014

x3083

Hitech Super Scan Elite 751

#

check # sequence 153848 \$999.00  
should include ~~153848~~

Maronechin Dredn 6.0 Upgrade ~~\$179.00~~ \$379.95

Inspiration 4.0 for Windows

Airbone \$78.70

UPS \$56.50

2-3 day

Send check to \$1056.49

PC Connect ATW Credit: Prep. id's

528 Rt. 13 South

Milford, NH 03055

EXHIBIT 12



Nov 17 Monday

ask

Intellnet

Ray Fitzgerald

704-3400

Pablo (201) 843-0505 x255 -BAK003

Catherine 721-3357 -KrdCode

Howard Schraeder 593-8000

Bruce Bernstein 475-4470 KrdCode

Head of N.Y. Software Publishers Association

Head of software dev. firm - Main Street Partners

Magic Game - Acclaim  
screen with buttons - c

Ann Cowley 932-9246

Howard Gesner 725-5966

For Howard - check that Auto Answer is  
checked on modem settings.

Intellnet

**EXHIBIT 13**

Tue Nov 25 15:23:49 1997

To: staff@interport.net

From: Michelle Baker <michelle.baker@acm.org>

Subject: domain name registration

Cc:

Bcc:

X-Attachments:

I would like to register the domain name KidCode. I've already done a name search and it is available. How do I go about registering it and getting you to provide the primary and secondary name service?

Thanks.

Michelle Baker

---

Mon Dec 01 14:00:52 1997

To: sawits@pop.mindspring.com, awc9@columbia.edu, snaveny@aol.com

From: Michelle Baker <michelle.baker@acm.org>

Subject: KidCode is now a registered domain name!!

Cc:

Bcc:

X-Attachments:

Now hopefully we can get Max to work on the Web pages....

Michelle

---

Fri Dec 05 17:01:57 1997

To: SnavenY <SnavenY@aol.com>

From: Michelle Baker <michelle.baker@acm.org>

Subject: Re: Letter to KidCode Advisory Board

Cc:

Bcc:

X-Attachments:

Catherine - on the credit card: you may want to give Gregg Salmon at Marine Midland Bank a call on Monday to check on the credit card application status. His number is 580-5533. I will be surprised if there is not a problem because of my personal credit situation. Assuming that this is the case, the bank should be able to offer us an alternative such as a

secured credit card. Alternatively, my mother, who is on the Board of Directors and who has excellent credit is willing to cosign....either way is ok although if we can get real credit via a cosign that would be better.

It would be great if you could draft a letter to the Advisory Board. I think you have a lot of sample letters that you may be able to base some of the new letter on. The purpose of the letter is twofold: 1.) to announce our great news - that we got the NSF Phase II award and 2.) to prepare them for the fact that we will be holding an advisory board meeting in late spring (date to be announced).

I just received the Nov bank statement and will try to get that to you on Monday. I haven't had a chance to look at the Quickbooks files yet.

Michelle

---

Mon Dec 15 15:46:49 1997

To: Anne Cassidy <awc9@columbia.edu>

From: Michelle Baker <michelle.baker@acm.org>

Subject: Re: priorities

Cc:

Bcc:

X-Attachments: E:\KIDCODE\ANNE\TASKLI~1.DOC;

Anne - The tasklist looks great on the whole. I've revised it slightly and attached my version to this message.

Wednesday morning would be good for me. I will need to leave by 1:00. How does that sound?

Michelle

---

Wed Dec 24 08:01:35 1997

To: Anne Cassidy <awc9@columbia.edu>

From: Michelle Baker <michelle.baker@acm.org>

Subject: Re: your meeting

Cc:

Bcc:

X-Attachments:

The meeting went very well. He wants us to work out the KidCode Rebus game for four and five year olds as part of a national preschool curriculum that he is developing in conjunction with two other universities. It looks like a very nice opportunity and I've always wanted to do a board game version of KidCode. He also believes that he has a publisher interested in selling the curriculum - if true, that part will be very nice as well.

He is also interested in the workshops. We will meet with him in late January, early February to review the workshop curriculum and discuss it further.

Michelle

---

Tue Dec 30 19:42:10 1997

To: Anne Cassidy <awc9@columbia.edu>

From: Michelle Baker <michelle.baker@acm.org>

Subject: misc

Cc:

Bcc:

X-Attachments:

Anne - there's no need to wait until the end of the month to submit your invoice for the work you've done on KidCode. If you prefer, you can give me the invoice and I'll write you a check at our next meeting.

How is Monday or Tuesday morning for a meeting?

Michelle

---

Tue Jan 06 16:30:06 1998

To: Anne Cassidy <awc9@columbia.edu>

From: Michelle Baker <michelle.baker@acm.org>

Subject: Re: hi (fwd)

Cc:

Bcc:

X-Attachments:

Anne - thanks. Jim Baldwin does sound great. I haven't had a chance to call him yet as I have been in Westchester all day. I should be able to call him this evening though.

Babette and I have scheduled KidCode prototype testing with kids at CCT for the week of Feb 16th. Kids are out of school that week so it should be relatively easy to organize.

Do some good work on your dissertation. I'll talk to you tomorrow about the bio.

Michelle

---

Thu Jan 15 12:33:41 1998

To: Kevin Kanarek <KKanarek@mediaworkshop.org>

From: Michelle Baker <michelle.baker@acm.org>

Subject: Re: kidcode

Cc:

Bcc:

X-Attachments:

Sorry that it won't work for you....it would have been nice to see you. In any case, I'd be interested in your comments, so maybe I can schedule something on an evening or weekend for you.

We did get a KidCode internet domain (KidCode.com) and I plan to get a Web page together soon. I would love to have you do it. We will need to speak more about the content etc. I'm also having some marketing people help advise on what the page should look like so at some point in the next couple of months we should probably meet and talk.

Michelle

---

Mon Jan 19 14:06:44 1998

To: Kimani Morales <kmorales@wesleyan.edu>

From: Michelle Baker <michelle.baker@acm.org>

Subject: Re: summer and/or vacation work

Cc: Anne Cassidy <awc9@columbia.edu>

Bcc:

X-Attachments:

Kimani - we need to make up alot more templates (e.g. 300-500) for the Rebus game. In addition to the sentences with words selected for

replacement, we will need alot more symbols and pictures. I am expecting to develop both a classroom kit that would use paper materials much like you built and computer software. We would use the same templates for both the kit and the software.

For the sentences all you would need is access to a computer with Microsoft Word...we will be changing the format of the text for both the kit and the software so, I suspect, all you would need to do is list the sentences (with underlined words)in a Word file and email it as an attachment. Ann Cassidy (see below) will be able to tell you what format things should be in.

For the pictures and symbols, I would like to use clip art whenever we can. In addition, we would create our own pictures and/or try to get copyright permission for pctures that we find. To start with, I would get you a few packages of clip art to browse through and find symbols and pictures. I've had good results doing this with clip art. We will give you exact specs for the format and size we need to have the pictures. I would expect that in most cases, you will need to do a few minor modifications to change the size, format, and occasionally coloring of the pictures you find. You would need to have a computer with a CDROM drive and Photoshop or something equivalent. Ideally, you would have a zip drive available to store the pictures on zip disks and send them to me. Eventually you might also need to have a scanner available but this certainly isn't necessary right away. We can probably save this part of the work for the summer, if we need to do it at all.

I have copied this message to Ann Cassidy who is the project director and in charge of software development. She will be able to tell you exactly what format the text and images should be in.

Let me know much time you think you will have during the semester and when you would like to start? If you send me your phone number I can give you a call and we can discuss this further.

Michelle

---

Tue Jan 27 14:45:57 1998

To: SnaveNY <SnaveNY@aol.com>

From: Michelle Baker <michelle.baker@acm.org>

Subject: Re: Info for Pat

Cc:

Bcc:

X-Attachments:

Catherine - thanks for Pat's address. MI is for Michigan. Yes, we need to transfer the clip art and scanned images to the magicloth. We also need to do something for the message boards - either use a piece of magicloth (if magicloth sticks to magicloth) or somehow put the printed text messages (with missing word) onto the magnetic boards and use these for message boards. I hope this is making sense.....

Michelle

---

Sun Feb 01 19:07:55 1998

To: Anne Cassidy <awc9@columbia.edu>

From: Michelle Baker <michelle.baker@acm.org>

Subject: KidCode images

Cc:

Bcc:

X-Attachments:

Anne - the KidCode images are all ready for you. Also, we need to set up a time to meet.

I hope your talk went well.

Michelle



EXHIBIT 14

\$449

120 images

- everyday objects

- gestures & expressions

} Photobase

kidcube

Feb 6

Ann Vickman

316-4205

Ann and Ruth feel its too much

Place on internet that helps you  
choose trademark - created db of  
phonemes etc. with what they cannot

- Give them mission statement - etc

and compare with competitors

\* Namelab maybe name of site

Intell

~~Depp~~

Personal

Doneyn & Mahan (508) 325-5735

Joe Mastroianni - Feb 16<sup>th</sup> latest 23<sup>rd</sup>

six chairs + table with umbrella  
photo furnishing

\$224 for  
table

40-

Yael Hoffman

325-4432 office

666-5386 home

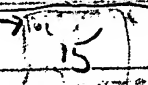
55-



empty pos  
Kspna

15 25 2 123 101 111 127

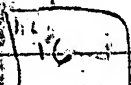
75



24

loc v 15 = loc v 18

205

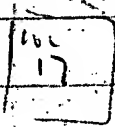


loc v 16 = loc v 15

17 - 8 - 16

18 - 16

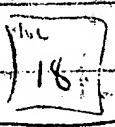
335



15 mod 4 = 3

16 mod 4 = 0

465

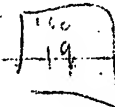


451

17 mod 4 = 1

18 mod 4 = 2

595



then 15 mod 4

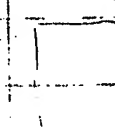
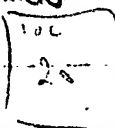
if loc of sprout is 595

set for loc of sprout

= 55

6 spotted

725



15 16 17 18 19 20

(1 2 3 4 5 6)

↓

425

0	2	2
1	3	3
2	4	4
3	5	5
4	6	6
5	7	1

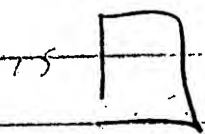
Kordale

For scrolling graphics

15 16 17 18 19 20

sprite (15)

1 2 3 4 5 6



$i = 1$  sprite = getat =

$i = 0$  15 (15-1) mod

1 16

2 17 18 19 20

3 18

4 19

5 20

21

sprite

$i = 1$  16

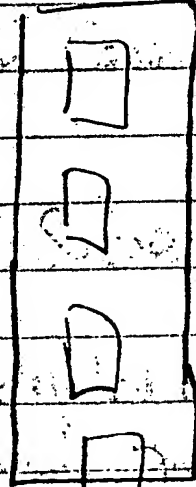
5 17

4 18

3 19

2 20

1 21



5 limit 0

sprite to sprite

pos

sprite 6

9

15 - 20 - 6

to sprite 6

15 + 6

16 - 15 - 1

4

17 - 16 - 2

2

(sprite mod 16) + 1

18 - 17 - 3

19 - 18 - 4

20 - 19 - 5

sprite + 1

Kid Code

6 10

3

6 19

1 2 3 4

1

2

4

2

3

3

Jack Goldstein

3

4

2

4

1

1

Ann Casady

932-9276

For Suave by next week

Jack Goldstein

- detailed description of overall client
- including how it interacts with
- network piece
- draft of contract

Suave - detailed description of company for networking

All KidCade

EXHIBIT 15

Feb 13

"In out" of Castle "Message box"

Q) set  $v_r =$  "In Out" of cell here "

Ann - working on rear fender getting  
bugs out.  
hasn't yet done reply

Bette 807-4205

KdCule

Insurance Claim Made

Theresa Kelly MD 2/9/98 \$125.00  
biopsy skin

Personal

EXHIBIT 16





Feb 23 - Monday All KidCode

Meeting with Judi - review workshop for CCT  
~ 40 minutes

1. Introduction

(Michelle)

- \* explain to CCT people
- \* explain what project is: NSF funded etc.
- (b) why we are giving this talk
- (c) who we are

Judi's discussion of problem solving.

2. Judi's locker game?

3. Judi's discussion of how children solve

problems \* we are trying to give children alternative representations.

\* we are trying to get teachers & children to explicitly recognize the role of representation

~~the end of the day~~

Mapping & Translation, Computer  
4.) Michelle's examples of  
representations & algorithms for  
the representation

4b) [7 kids - children begged down in stage] then a wall

5. Rebus Game - math as communication  
- government  
- dancing in rain  
- crops did not grow  
Mapping & Translation  
Stop and Talk

6. Graph Paper / Budget Alloc. Game

- power of representation  
How representations can drive conceptual  
learning  
how many different ways

7. Summary - discuss the advantages of the  
computer version over the board games.  
Talk about

8.) Talk about advantages of computer  
version

Be the part of paper & pencils

All KidCode

Thursday morn Mar 12

or } Friday Mar 13<sup>th</sup>

1st choice  
to get  
all ok  
then type

RFC 821, 822 - SMTP

RFC 1939 - POP

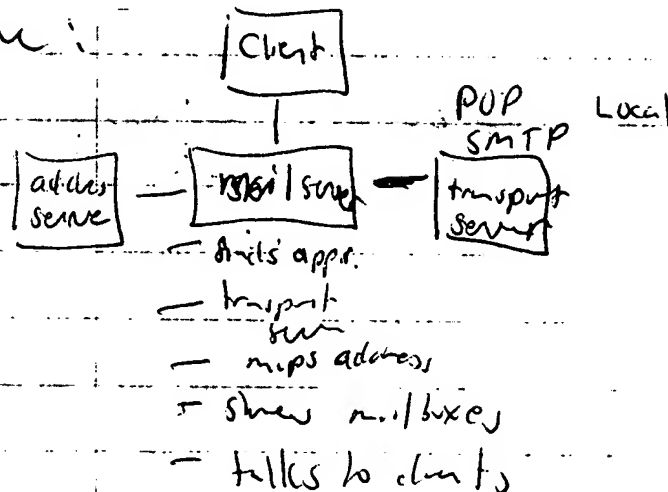
RFC 1521, 1522 - MIME

1590, 1848

RFC 1869, 1652

Service Extension

Need architecture:



All Kidlode

EXHIBIT 17

March 2

Ken Dam

Professor of Law

University of Chicago Law School

773-702-0216 (phone)

773-753-1024 (fax)

faxed cover page of PUI packet - request  
for help developing strategic partnerships.

BAKool

Jeff Baum

West Side Little League

240 W 102nd Street

NY NY 10025

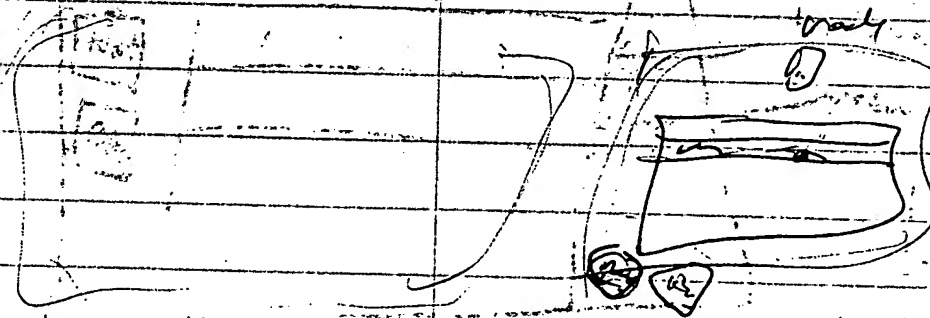
Personal

Bill Deere

Purchase Art Faculty

(914) 251-6767 (office phone)

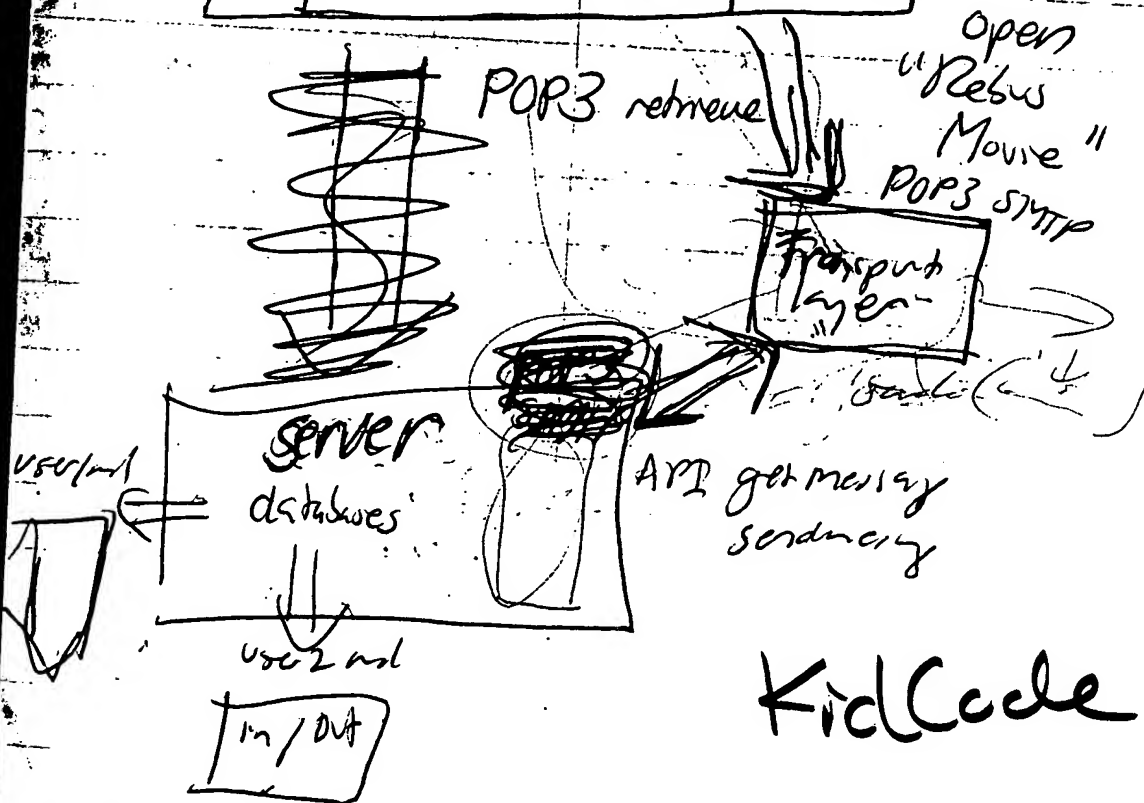
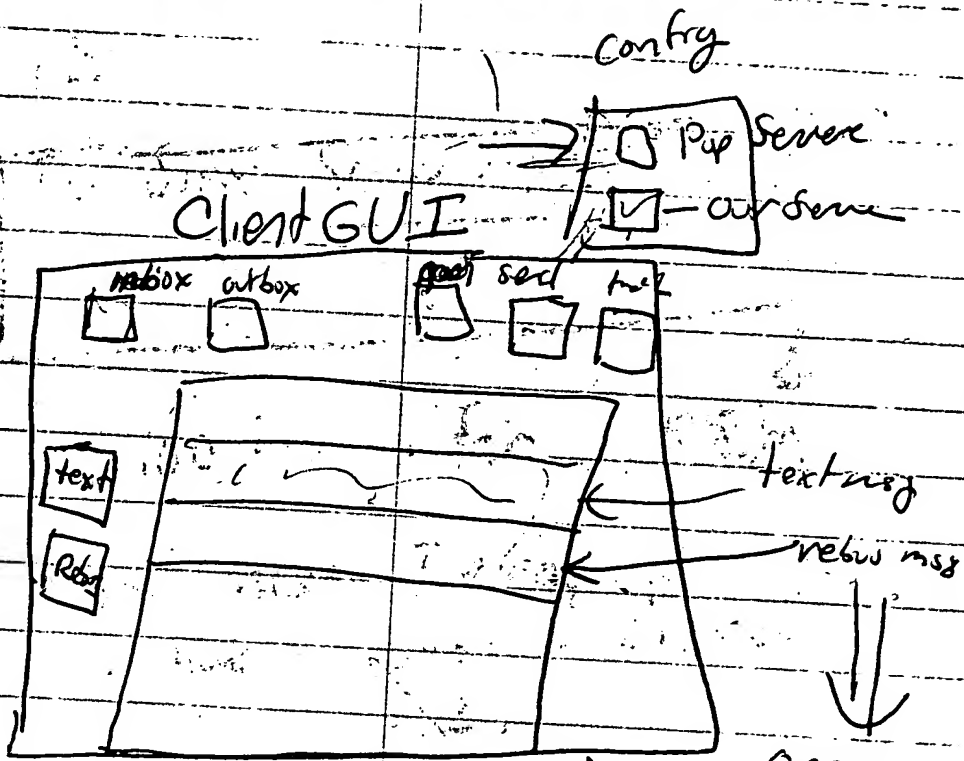
(To: From mm type  
#date 01/12  
#msgbody [ ( ) ] )



Rcv

Tr

All KidCode



KidCode

**EXHIBIT 18**



Spak 325390  $\$300 = 20 \times 15$

$400 / 20^c \text{ benefit} = 20 \Rightarrow 20 \text{ pix per dollar}$   
 $\$103 \text{ benefit} \Rightarrow 120 \times 15 = 300 \text{ pro and R}$

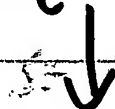
1/8/98 - 2/18/98 - David Gordin -  
checks for Compensation of 2300

1/8/98 - 2/18/98 - David Gordin -



All  $\uparrow$

Kidcode



March 9

Babette 807-4205

I need to get her a copy of abstract for  
Dept Ed rfp by Thursday.

March 10

Marian Schwarz 807-4230

Adult Literacy Media Alliance

(have Ford Foundation money for TV series)

I am to call her later this afternoon to discuss  
collaboration on Dept. of Ed grant proposal.

Note for discussion - She could do 2 things

a) develop content

b) use as delivery vehicle

Kimani Mureles

865-5834

- Kdlcde  
home

PT contract app fee

9435

BAlcoul

1/8/98 - 2/18/98 - David Gordon

checks for Commissioner of Pituit.

\$395.00

# 1247

Dec 23 1998

9/10

Kimani Morales - 9/30

Science Service Services

<http://www.sciserv.org>

sciedu@sciserv.org

(202) 785-2255

S=

Kdlcde

~~Mr. Beggs~~

- computers

covers hardware & software

ask Mr. Beggs for independent project }  
3 period lab vacation }

Art Gross - at another university

Bob Hummel - NYU

Robert Lowe - NYU on periphragmata

**EXHIBIT 19**

Netscape, Yahoo - those companies  
would be interested. ] BAKAWI

March 18

Joe - fax at Cotigale (212) 508-3544

\$1261.24 to Dad Personal

Ken Repp (617) 969-7100 x2251

Things to do on grid game

Include

- 1.) set sizable objects to disappear if  
the delete key is hit with the  
mouse or this
- 2.) set sizable objects to be selectable  
- inhibited in some way when they  
are selected
- 3.) fix fields to display quantities properly

4) fix ~~more~~ sizeable objects to  
be behaving, but once and  
move properly.

### Behaviors

#### of sizeable Objects

Movable

Sizeable

Deletable

Selectable

#### of Constrained Objects

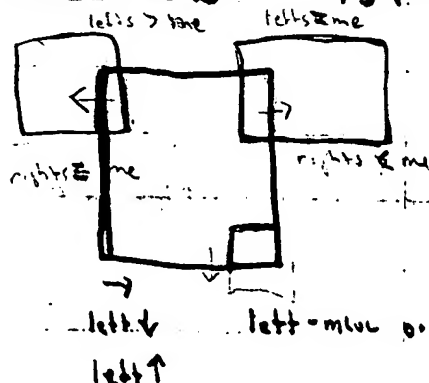
NoOverlapSnap (neighbor)

AllOrNoneSnap (neighbor)

of Quality Objects (type) implies unit, price  
compute area (in pixels)  
compute value (in units)

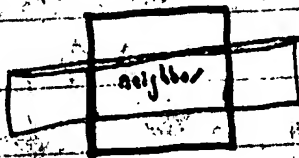
All kinds

Jane Mello - 459-8786 (718)



of horiz address by width/height  
+ me - rights (+)  
- me - lefts (-)

left - move or right + move



KenCode

Ken Dam - suggests I track down  
Ellen Henscode - also suggests small  
aggressive company. Says IBM would  
have 0 probability of interest

Electrolux because this is not the  
nearest sales & service way they do

1463 York (212) 881-2400 business.

142 W. 23rd (M) (212) 255-5535 They

Personal

decide what business they want  
to be in and then go after

licensees. They do cross licensing agreements with  
firms - then messages to them they will come  
to you if they are interested.

KenCode

If still out overlaps someone then ← out ↓

If still out overlaps then → out ↓

If ↓ out overlaps then ↑

sequence of moves to avoid overlap:

←, ↑(left), ← and ↑(only), →  
 ↓, ↓ and ←(for ↓)  
 →, → and ↑, → and ↓

←, →, ↑, ↓

4 (one)

↑→

~~4 (two)~~

4 (three)

↑→ ↑← ↓→ ↓←

if all fail then shrink sprite  
 or move at board

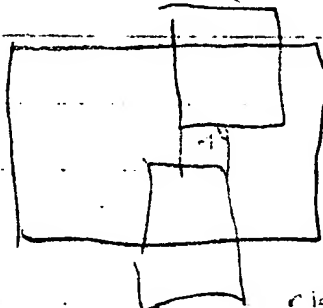
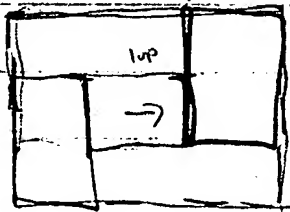
bottom

top line >

inside (line dit)

top line

point (left, top, right, bottom)



if on screen then snap el

else get to left set right = left of next

el; get to right set left = right of next

else it goes

it goes down

If right me ( )

intersect left me ( )

If right < left me



All KidCode



#howtop, mAbse

v

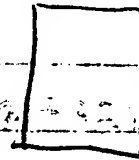
Chave

235-9905

\* 229.02 make



All K. look



\* 2255 If moving and overlap then shift  
out to 7 snap if still overlap somewhere  
then else then 1/2 size

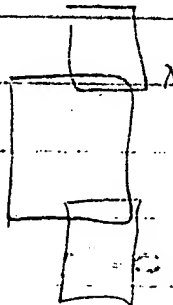
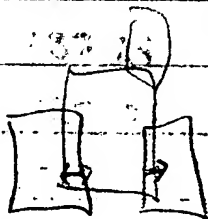
229.02 2/11

to IF 155.12 and overlap then shrink

\* 2273 100.10

\* 2273 100.10

\* 2273 100.10



with

If width of intersect  $\geq$  height of

shift west

else shift here

Problem - If mouseup in two behaviors  
it will execute both

Bug in MoveTo Snap - closeEnough snaps  
again on 2nd click. <sup>withhold</sup> results



EXHIBIT 20

Baseball coach

Neil Feary

Bulldogs

(212) 362-3919

1-2:00 Friday

PS 163 97<sup>th</sup> St Col. Angt

bring glove

(Thurs or Fri) practice

Personal

March 25

To NetLife

Pediatric & Adolescent Medicine

390 West End Ave 16024

\$85.00 service on 3/6/98

Pablo

(201) 843-0505

x255

BAK003

Alison - 011 44 181 256 8317

181 947 2481

(fax)

KidCode

777-9435 - Catherine

Intellinet

EXHIBIT 21

April 3

All kid Code

Darlene Abdale

721-2300

x 546

x 155

SBIR proposals

my salary

\$8182 weekly

Catherine

\$4091 weekly

Two kids on James/Michael team

(1) Pierce Eimicke

(873)-0385

Tom, Louise

556-3701

(2) Samuel Page

222-2914

Jerry & Catherine

Joyce Silverstein 860-5942

District 4 Office

Jane Hauser at U.S. Dept of Ed suggested we submit SBIR

call her Monday <sup>afternoon</sup> PS 102 860-5834  
+ to new ~~contact~~ <sup>contact</sup>

Babette - 807-4205

579 26 VD

Meryl -

1499 + 7

7:15

3,500

11

12

7:20

-

A

12:45:00 pm

A

2 pm

am

4:16

Judy Cohen

home

580-2911

office

362-4485

\* to help kids develop ~~skills~~ in areas of weakness  
language / vocalization

\* grapho/note - to encourage

language deficits - will encourage them  
to communicate

All KndCode

EXHIBIT 22

Betty Howell

Alaska fishing teacher in

every

long Anderson

at Vell-15

Wednesday April 8

Sharon Robert's recommendations for programmers

Mark Karlin (201) 251-3185

Creative Consulting Associates

Killedale

Bob Upham 973  
(201) 301-0354

Mark is at

Amsterdam 913 165 W. 91st

building at corner 9

has classroom - he will be

waiting in the lobby

Apr 9E

Personal

EXHIBIT 23



Tuesday April 14

George Wolberg 650-6160 - BAK001

Sharon Rubels / Ken (908) 862-4726  
862-0995

Kathy Ann Puns 362-3174  
~~769-9920~~

3600 - account # 1099

For Investext look-up  
B Preis  
Asymetrix  
Cendant

Innovative Interactions Inc. (I3)  
Austin TX (distributed to edu)

Kidech

Fredy 4:30-6:00 - 254 Ashes Columbus 977  
Gare Sun Apr 19 Field #2 11:00 to Ave 10:30

Perini

Online Learning

All KidCode

Advance Technologies Inc. acquire The Literacy Co.

Virtual Knowledge

- at home testing of K-12

(over 200,000 sold of skills Testing  
series)

Innovative Instructional Disc

ITV - \*\* check this with Instruct

Advance Learning Systems

Digital Education Systems (with Oracle Education)

Real Time / Interactive Experience

Sound Source (NY startup)

Viewpoint Data Labs

The Image Processing Handbook John C. Russ  
CRC Press

ISBN 0849325161

- segmentation, edge detection

- thresholding -

ACM Capacity Surveys - { All Kitch

Lisa's Durston.ibm.com

Janet Leith - Pricers Guide - also - CD Rom

\$895 for CD Rom

Richard Isidore -

Milce from Village RBL

Sony's L&K -

Needs Indents - to do Photoshop

Laura Esler

she has done greeting cards

and is commercial artist.

Sharon \$100. per hour Ken \$125 per hour

AT&T - fax guarantee service

~~document~~ calls at 9¢ a minute

web page email

\$21.95 per month

Perical

WorldNet

separate types of

calls - business

EXHIBIT 24

Tuesday April 21

Jessica Hodgins 404 894-9763 (other)  
404 894-4488 (GATE) -

Wednesday April 22

Pictures 1:30 Saturday at <sup>field</sup> 102nd Street  
Game is at 3:00; cost of pictures included  
in fee that we already paid - additional  
pictures bring money.

Diane Nichol will help make calls **BAKOOL**

Janice - Rene Tracers --- work to check call for put

~~renee~~ 799-4113 Gilbert

860-4290 Hogan

} Personal

DRW 600-CC278-07068-73411

Pablo (201) 843-0505 x255

BAK002

BTG - James Roberts - 610-313 4007 BAK001

For Susie - Java Mail 1.0.1

Abstract Classes for a mail system

at <http://java.sun.com>

19dCule

Thursday April 23

Interport Communications 989-1128

10/6/97 - 10/1/98 \$200.00

1133 Broadway 10th Floor

10010

## Susie's Mail Server

2 files that are created on install  
HashTable, server {main file}  
Phonebook, server

HashTable, server {all the users}  
messages

username <sup>index</sup> → vector  
(username, password, all msgs.)  
↓  
vector of  
instances of msg class

phonebook, <sup>index</sup> username → vector  
(names) → addresses

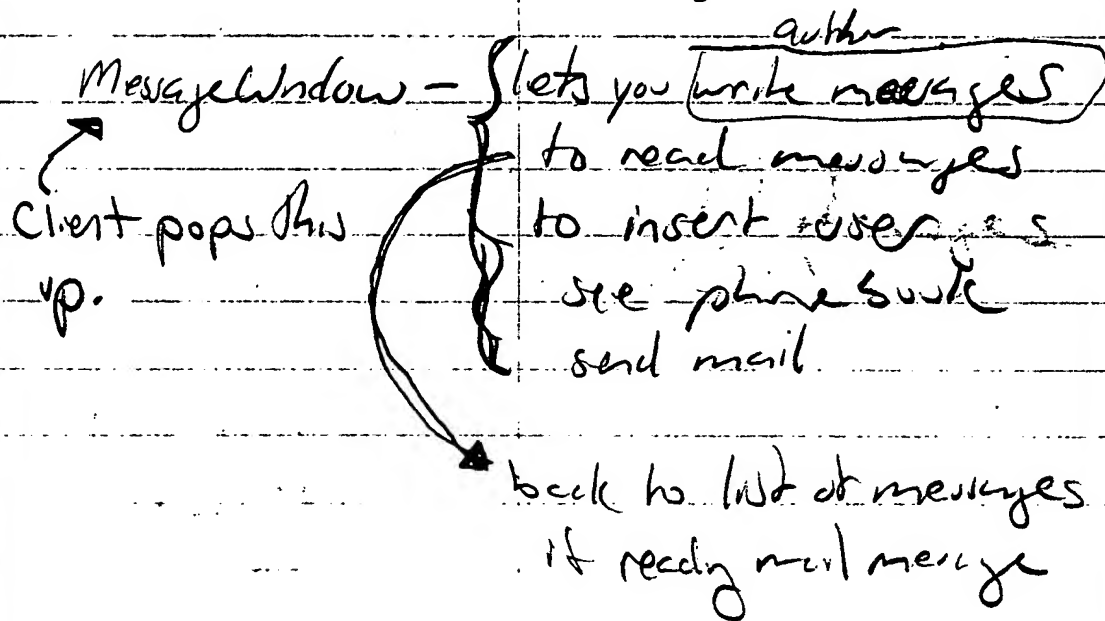
All Kiddle

Startup find the

↳ makes two empty files

starts up with user interface

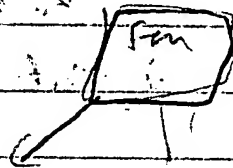
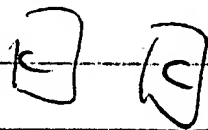
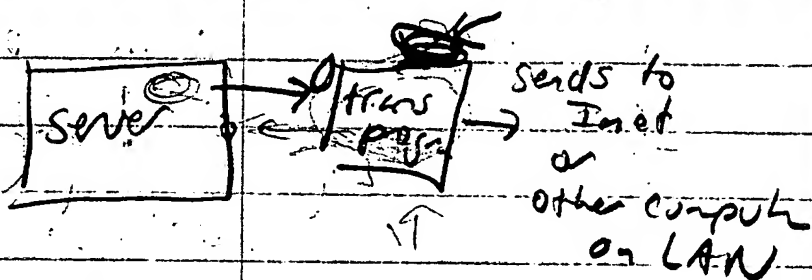
"message window"



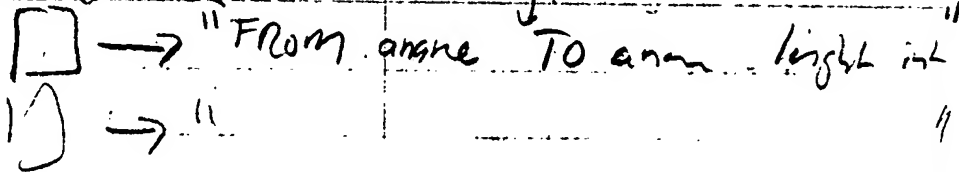
For now - Sure starts server and  
client as she starts the  
program running.

All KidCode





information



(From the)

Administrator Client

Work

All Krdcube

Help file builder in Java  
Send this

Kellule

Capital One balance \$209.10

Jet Direct 32552A

Version A.03.06

Gatung commands

Mitsumi 12x COR10E033A x WW

Toshiba 8x COR10E024A x WW

Phasonic 8x COR10E026A x WW

\$55.00 293

2 pt  
#1

Tech Support

EXHIBIT 25

Ann Cassidy 932-9246 K. L. Cude  
I3 - out of Westport, CT

University of Ryer Sound <sup>253</sup>  
~~(206)~~ 756-3375  
School of Ed

John Woodward <sup>253</sup>  
~~(206)~~ 756-3793  
woodward@ups.edu

Wednesday April 29

Sara Nerlove - (703) 306-1391

questions on Progress Report

- do we need to report equipment < 5000 as  
Equipment
- do I need to report RWI separately
- estimated level of effort (in months) ?

Amtrak 1-800-523-8720

Special Promotion until 21<sup>st</sup> of May

NY to Glacier Park - travel by train

\$285 one way adult child - 1/2 price senior 15% off

Personal

Joyce Silverstein - 860-5942  
District 4 Office

Yvette Sneyd Herzog - Silver Gwynn School  
(212) 787-3312 fax  
(212) 787-7070

John Woodward, U. of Puget Sound (253) 756-3793  
School of Education (253) 756-3375  
(253) 756-3793

↳ (253) 756-8312 (fax)  
woodward@ups.edu

Joyce Silverstein at PS 102 860-5834  
Joyce's office → 860-5971  
at PS 102

<http://fargo.itp.tsoa.nyu.edu/~l.pkins>  
traveling words / many words } present child support

Lawrence Lipkin (718) 522-2793

All KidCode

Robert Negrin - 860-5827 All Kiddle  
Principal at PS 7 160 E 120<sup>th</sup> Street

Babette home (718) 784-3022

[ Joyce says call Sue Herman at  
Robert Negrin's school.

Sue Herman at PS 7 860-6070  
(fax)

Questions for David McIntosh, Competition Manager  
Research to Practice Division  
OSEP (202) 205-8111

- 1) need to budget for 1 2-day trip to Washington  
for PI meeting  
+ 1 annual trip to collaborate with the  
Program Director  
→ per yr.

⇓  
when are these trips supposed to occur?

- 2) lobby disclosure form not needed?

non-construction program resources not needed?

3) Voluntary exclusion = Lower Tier Curial (Museum)  
for decision (?)

///

F-17

4) Impact notice? - what am I supposed  
to do about this? We do include  
full access information proposal.

Friday - May 1<sup>st</sup>

John Woodward - Not Pyrot Sand (253) 756-3793

All KidCide

EXHIBIT 26



John Woodward - U of Ryer School | Kiddle  
(253) 756-3793

Tuesday May 5 All Kiddle

Robert Negrón PS 7 860-5827 3 I  
Sue Herman 4 I

Ethel Zel-Guerra PS 38 1 I  
860-5882 00

Principal at PS 169 at Queens R 1  
has alot of special ed students R 2 } was  
She needs R 3 } Special  
R 4 } Ed  
Fax her somehting } R 3 } under  
as soon as possible, } R 2 }  
& letter R 1 }  
OO

(718) 428-6160 ~~Answer~~ } District 25  
Annette Konin, Principal  
(718) 428-6160  
224-1013 ← fax #

District 30 is Delle

~~Handwritten scribbles~~

Meely with Rick ~~Shatz~~ Schatz  
Math Coordinator District-3

Lenny Baum - Speed Bd }  
District 3 }  
married to Pat McKinley's best friend

Fax letter to Pat }  
678-2930 } my lead  
hang up  
Fax to 678-2936

Subtle Pictures - 37 764, 80,040 82 429

678-2930 Pat Sebastian

All KrdCode

AIMA - Lisa Gale on maternity leave  
807-4238

Constance Sinder 807-4237

Maria Schertz 807-4230

Alex Quinn - Deputy Director  
Director of Outreach

633-8804 Pat at work

$x \cdot (1+i) = y$   
662-0214 Pat at home  $x = \frac{y}{1+i}$   
 $100 + 100 + 100$  after 6:00

100+

All Kidcode

EXHIBIT 27

Intellect Mune Mulled 1-800-759-0315

6119.70

5/6 #1292 172.13

5/6 #1298 200.00

5/5 #1294 0.09

5/5 #1293 18.00

5/5 #1302 2000.00

Intellect

~~1000000~~ 1000000  
Brian Yecwood BTG (610) 278-1660 (Akool)

Friday - May 15

David Goodman - TRS Management Office  
557-3600 re: tile in bathroom

Erica Skhutz (718) 965-3702 (home)

\$1815.24 gross 1729.14 available

~~James~~ Tudor Realty Hanna Garcia  
Accounts Receivable

Personal

Graciela Nardo - NSF grants officer

(703) 306-1218

Virginia Hill

(703) 306-1283

Alex Winnick

Sara Nerlove

(703) 306-1391 x5247

Maria Lucca - (201) 505-3579 (work)

contract; buyout all rights for all uses - specify  
uses - electronic, print, mail.

make sure there is no time involved

Ann Miller - Steven Gaynor School

Director of Lower School

787-7070 - call her in Sept.

she may want to work with the  
Lower School Math Resources Teacher

All KidCode

Perspecta.com

lifehacks.com

Ethernet color guide - From bottom (not as)

white/orange

From left

orange

white/blue

blue

white/green green white/brown brown

- Sourdough Pancakes - starter

Monday May 25

Maria Lucca 465-3147 (voice mail)

737-7054 (home)

85 East End Ave 83<sup>rd</sup> Street

All kids

Andrea Kline (703) 306-1212 x4277

Lodup Paperclip Software Inc. - msp with Access  
IMS International Microcomputer Software  
Willdate Inc

May 22

Lawrence Upton -

I gave him 1.) Top Secret Decoder CDROM  
2.) KidCode video

Integration

Option (a) ~~the~~ Movie in Director

use Java Xrta to convert  
to Java

Option (b) Gif animation

Design - ~~not~~ spec what is frozen and  
what is to come

All Kidcode



EXHIBIT 28

EXHIBIT 29

Janice Clare - Head of MSK, District 3

678-2937

Erica Shultz

Toni Cameron

~~Glenn~~ ~~MSK~~

Susne paid \$4010.<sup>00</sup>

May 29

Kellie

Janice Clare - 678-2937

Notes from yesterday's conversation with David Gordon:

~~David~~ David thinks we should

- deal with MS, offer a very cheap license
- not give away free licenses to anyone
- not bother to fight a lawsuit because most revenues will come from MS anyway
- consider selling the patent - or portions of it

BAKODI

# ALL BAKOOL

I need to do:

- 1.) check again into Hypercard, ResEdit to verify that there is no prior art on the Single image link style file technology.
  - maybe try the guy or web who tries to mod. date software patents
  - maybe try Mike Nowack to see if there's anything at Xerox, eg. related to Hypercard.
- 2.) find out how MS is likely to react to better nothing infringement + offer of inexpensive license.
- 3) verify and firmly establish proof of date of invention.

Meryl. 203-329-1160 re: fax with  
whist contract

David probably won't have a chance to look at it until Tues.

## Re meeting with Susie All KidCade

- 1) Susie will program communication across Java ~~panels~~ to canvases to see if drag/drop across canvases is possible.

Other items on Susie's plate:

- (a) determine whether to use Sun Mail Classes (actually how/ how much to use)  
(she will speak with a network guy)
- (b) get mail client running for testing with kids - she will need icons, and fixed design
- (c) get mail ~~star~~ running and tested on offline machine and on LAN.
- (d) design Rebus type in window for "make your own template"
- (e) layout templates into scrolly graphics canvas.

EXHIBIT 30

Saturday June 6

Director / Lingo work - snapping behaviors

SnapThem Library.cst saved 6/6/98

5:13 PM

Working in the directory D:\KidCode Code Backup / tests

Save move test.cst

Import cast: D:\KidCode Code Backup / tools /

SnapThem Libry.cst

- Still a problem in snapping behaviors

- \* when a sprite is resized to completely past both borders (horz or vert) the sprite does not snap back.

All KidCode

EXHIBIT 31



Sunday June 14

Herdi Leather

Monday June 15

Tech

Global Equipment - reshape storage system

mobile base + top	=	32.95	32.95
2x 5 1/4 extrn wide drawer		42.50 x 2	85.00
5 1/4 double drawer		37.95 x 2	72.90
3 1/2 extrn wide drawer		42.50 x 2	85.00
			<u>8278.85</u>

1-800-845-6225 Total \$453.03

order # 244638

David Gadsen (203) 329-1160

Nancy Ross nross@pogo.edu.org  
807-4207

- how do we work this thru cct. or on the  
rule

- note

- need her to modify Director program  
for user tests

\* six bugs

A.) email client (newscreens design)  
(web box login)  
overall understandability

B.) audio and lastboxer } For Review  
for typen answers

new templates - maybe

or revised screens design

All KC.

EXHIBIT 32

IBM Technical Support 800-772-2227  
SN/ 78-K3077 97/06

Monday June 22<sup>nd</sup>

Sub Zero 1-800-~~222-7820~~  
~~356-5826~~  
Cathleen's Appliance 212 947-8841  
model 561 - m694194 \$68.00 service  
charge

Big Apple Antiques - 260-5110 \*

More & More Antiques - 370 Amsterdam 78<sup>th</sup> St  
580-8404

Tepper Galleries 677-5300  
they want photos 110 E 25<sup>th</sup>


Chairs Cared 371 Amsterdam 724-4408

DLink ~~tech support~~ <sup>sales</sup> 800-326-1688  
tech support 949-788-0805

I believe I have the DLink 650 or 650CT

I have downloaded the files

Jack Zink (letting)

this is a   
CT card {on} {box}

Cliff - I need to call him and read checks  
to him. 725-5966

Kevin beige 917-457-0301  
Kiddle

Doreyn 508 325-5735

Kevin 1100 - 10713  
Per h.H.

Tuesday 92

Chase Bank 935-9935 073219800

balance	565.77	still to clear	50.00	#2287
card	\$10.83	6/22	L. Byrner	265.00 #2295
#2275	66.11	6/19 MCI	Murray's	200.00 #2294
card	34.63	6/18	Bell Atlantic	66.47 #2286
				521.47

Natrbet Bank 508 228-8580  
They will redeposit the check that bounced.  
20 hrs (888.90) Calhoun

For copyright - I need all info from  
artist + assignment doc. Is purchase

work for hire - full ownership <sup>of all rights</sup> belongs  
to the company

If court determines it is not work  
for hire

→ competitive jurisdiction  
Should determine that it is not  
a work for hire the parties  
agree the constitutes

75% or less + 25%  
cup artist

Artist creating artwork as work for hire for

**KidCode**

Marty Zoltick (703) 412-6006  
3:00 Thursday

1341001

EXHIBIT 33

Friday June 26 1998

Babette 807-4205

Karl Cade

main email mouse -

PhotoBp file -

project mouse

Rebus note

Majes Ek

Ph. a.k.h.sou

main mouse - specs for Ole

but then monitoring site.

3-2-40 hrs.

60 mins

call Nancy 8<sup>th</sup> or 9<sup>th</sup> of July

NY Times 1-800-631-2500

suspend subscription from June 27 - Sept 6<sup>th</sup>

Norwalk Electric 228-1870



for Nancy Ross

email small man 1024x768

email small/2 - 1048x810

KidCode

### To do

- 1) set up AT&T WorldNet on TP
- 2) download AT&T WorldNet phone numbers
- 3)

### Even Judi

- 1) plural nouns
- 2) plural verbs.  $\leftarrow$  only in case we have plural
- 3) use verb & noun in sentences, where we have opportunity
- 4) use one or two context words used to help child when necessary.

KidCode

EXHIBIT 34

Tues June 30

Cheyenne World Net

(307) 632-0673

Mon July 6

Mike Risko

EDC

(617)

618-2228

kidcode

Sunday July 12

1-800-759-0315

028064909

\$372.49

7/9 ATM 140.50

7/6 ATM 142.00

\$226 405.00

225 2040.98

216 1020.49 3.41

Tuesday July 14

Mike Risco EDC - (617) 618-2228

Babe De 807-4205

kidCee

next week - testing

Daniel Gordon (203) 329-1160

Bakool

Tom Gallagher

- Share of Limitations  
(2011 he was thinking of

Tom xcl "Contract"

"Contract"

"Prand" xcl "Conversion" - outside limit

1-2 yrs billing

Ray Fitzgerald

704-3400

issue date of  
patent.

If foreign filings were published then we  
may be able to shut out prior the foreign filings  
were published.

{ 6 yrs from wrong on 1-2 yrs from date  
you should have discovered  
it.

The PCT application published April 11<sup>th</sup> 1996.

June 1999 - Cytime

Marky Zoltie (703) 412-6006 BAK001

Nancy Ross 807-4207 Kiddle

Cliff 725-5966

Sore Rybak 721-4428 Kiddle

Pablo Tapia (201) 843-0505 x255

- left msg asking whether he'd put the SNMP

monitoring materials in the mail to me

asked him to call me.

BAK003

EXHIBIT 35

Francisco for bathroom tile work

(212) 722-5801 - left msg

Michael Salvato 420-0293 (for reference)

La Braga (furniture repair) 665-8732

Reg say bring the chair in

Paula - Answers Research. They need 3rd HP  
copier tracking label.

1-800-526-2831 (fax)

Friday July 17

Capitol One 1-800-608-5227

\$181.95 balance. no payment due at this time

Pablo (201) 843-0505 x255 **BAKOO?**

Hambrecht & Quind, Fidel. Capital - probably  
has investors. He says "all it's been dotted and it's  
crossed". Financing should be in place as of  
today. He is still interested in doing some  
with me. Will get the FedEx out to me  
today with materials on SWMP monitors.

Moby Zoltrek (703) 412-6006

Vicki Hudson

XC200

BAKoul

Some notes

need dropdown list for Ole to field clerk  
author a msg.

Java - color depth } find out

- 1.) buy mge for adminstrator
- 2.) change personnel screen.
- 3.) check color depth in Java
- 4.) check text to speech in Java

Kidcode



To do

## All KidCode

- 1) all things for Sisie
  - (a) bmp of administrator module
  - (b) change pw screen
  - (c) check into color depth in Java
  - (d) check into text-to-speech in Java
- 2) Rebus
  - (a) debug
  - (b) improve performance of text draw
  - (c) add templates & images for blue set
- 3) User Testing
  - (a) develop plan for template testing with Babette.
- 4) Talk to Nancy about possibility of networking by having file for mailbox.  
807-4207
- 5) get IC card flashed for Win95

EXHIBIT 36

Receives Techniques SA-E X110 \$170

\$160 JVC RX-318BX (5.4 FM)

need to find out what ohm speakers are

Acoustic Research (707) 748-5940

2-ax speakers

Kevin - can meet tomorrow eve. after 7:00

932-9232

KidCule

Monday July 20

6:30 The Lubin House 212 414-4161

11 East 61<sup>st</sup> Street

Weds. 5:15 Business P/Lg. Projects

MIT Enterprise Forum

212 681-1112 \$40

\$25 for members

935-9935 Chase Bank 073 219800

\$1387.46 - no change from Saturday

Francisco - bathroom floor 722-5861

David Goodman TRS 557-3600

Empire Blue Cross NY skte Service Center

1-800-342-9815

\$183.50 - paid to Naticket Cottage Hosp.

except for \$20.00 copayment  
for service on 7/15/97.

Empire Person said that bill was refused because  
Naticket Hosp. did not submit correctly. It  
was resubmitted correctly and paid.

Babette notes/comments

Pick 15 sentences - we can get up to 20

12:30 - Cornelia

Kid Cule

Catherine - pay Michelle Arsenault  
\$28.00

she will come today before 2:00 -

Marty Hyman Photographers (516) 791-9292

- Bradley Forman.

get # and loc in ckrs pks.

- Sandy

NY Times 1-800-698-4637

new account → \$85591600

Capital One \$259.05

# to begin in Sept 7.

800 608-5227

- July, Jan (212) 721-3568

## Rebus - flow of control

Al  
Kid Cede

init - screen & globals

↓  
get message (make new or receive from email main)

↓  
layout message - layout text  
layout symbols  
layout guesses

↓  
if authorizing mode then

monitor user input & respond

else wait for user input / button press

## Kids & New Media

George Sacks

Susan Moont

Jeel Weisburg - Exec Producer, Nickelodeon Online

Nickelodeon - notation - to change things

- some things change every day - A initiative

poll vault - most popular area on site

Story Server - database driven (Oracle)

with automatic compile of web pages.

# All KdCurl

- Need to link images to database entries at runtime and subimages

important to add this claim to the patent

\* The problem with the compilation of individual pieces and images at runtime is that each of these pieces needs to be placed at some pt by a programmer/designer

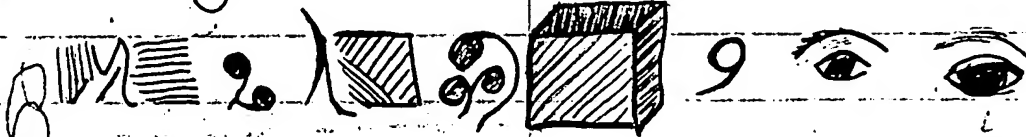
performance wise → would it be better to hardcode / precompile the graphic elements into a image page

→ Get the tools either way !! Even

if the elements of the page are assembled at runtime, any graphical development tool that allows a designer to place the images will be linking to program components.

# All Kid Code

Privacy issues - CARE, CME

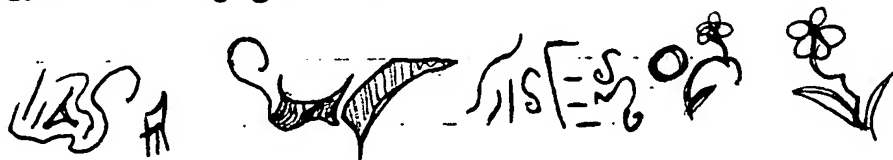


Board of Ed - looking for content partners  
4.1 million kids.

M&M Media - where, good business model  
(revenue via sales)  
probably a fee on each transaction  
Bunee & Nolle is the only partner now

13  
CS

This is model different from sales of ads.  
Problem with this model for a kids site is that  
kids don't have credit cards - can get around  
this by having parents sign up with  
credit limits for kids.



Interested in speed - speak with  
George Sachs

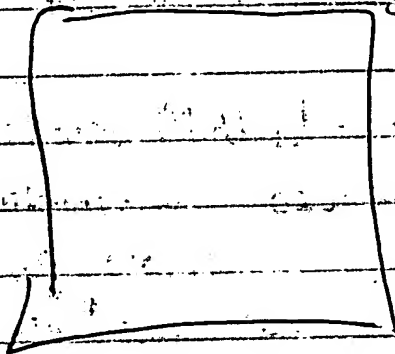
EXHIBIT 37



Monday July 27

1000 - users

usernames unique



= standalone version

have alt system users  
no login box

= network version

will have user groups  
and phonebook  
and slightly different  
interface - addition  
of a second address  
for user group.

Nancy - ok button on login screen

All KidCode

EXHIBIT 38

Tuesdg Aug 4

All KidCode

Rebus debugging

1) on open with white = dec in both  
symbols and scroll palette disappear

Thinks "know" is a property because it  
has garbage in it and is on old lot

spreads 15-20 probably not supported in email  
- this indicates will Rebus more

Babette - PSI Center for Contemporary Art  
21<sup>st</sup> Street and

E or F train to 23<sup>rd</sup> Street and Ely Ave  
walk on 21<sup>st</sup> Street for 3-4 blocks,  
huge red brick school building on  
left side of street.

look for face Mahalia Slickme  
left turn on 21<sup>st</sup> Street

Walk past school building and take left  
turn to end of block - entrance "Art Camp"

Door usually open - few steps down -  
1st classroom on left

If door not open - "Knock on Window"

They start at 9:30 - we should be there  
by 9:00 to set up

59<sup>th</sup> Street

1 stop  
D turn to 7<sup>th</sup> Ave  
to E.

or 2 stops to Rockville  
and get R

Stephanie Diamond

Bebette (718) 937-0258



Future Kids - Franchises 85 franchises  
in 25% of area.

They provide marketing materials,  
linked advertising, curriculum.

All Kid Code

EXHIBIT 39

Monday Aug 80

Palettes & Director

All KidCode

1) stage is 16 bits

photos remapped to 16 bits by Director

may look good

2) can try to map images to 8 bits

un palette

Cliff/Howard 725-5966

Charged NRow computer (ThinkPad)  
Net id ~~from NRow~~

computer name 1444

workgroup EDC-CCT

to

computer name CCTThinkPad

workgroup HOME

A For Toshiba

from computer name Laura Bryant → CCT Toshiba

workgroup Workgroup → HOME

↳

Kamani

865-5834

Quit button -

with <sup>width</sup> 71 x 41

\$107.00

All Kidcode

More bugs

- clear template & download in Rebus

- reply on mailbox

Tuesday Aug 11

testing Kidcode at - PSI Center for Contemporary

Art Camp

21<sup>st</sup> Street

Art  
Long Island City

23<sup>rd</sup> Street & Ely Ave Subway Stop

on E or F train

When exiting subway station, turn to  
face the Manhattan skyline. Make a  
left turn onto 21<sup>st</sup> street,

walk 3-4 blocks until you see a

huge red brick school building on left  
walk past the school building and turn  
left.

At the end of the block entrance "Art  
camp"

subway to E: take D train at 59<sup>th</sup> Street  
one stop south to 7<sup>th</sup> Ave and switch  
to E.

## All KidCode

### Notes on Prudence/Giselle

Giselle has trouble placing symbols on  
the red words - cursor wasn't exactly  
on the word (a bit above.)

BabeHe - number the messages in  
the mailbox  
and give "R" flag for reply.

- \* Prudence clicked on "T" button and it  
just started cycling through the  
as code
- \* Kids don't check message words  
to see if they are really correct.
- \* Kids don't always check To field list box  
to make sure it is going to right  
person - incorrect click on list box  
but



\* Must grey out reply button when  
its time to send.

## All KrdCode

~~Abd~~

Charlie / Gregory

- Charlie has very little computer  
experience, using mouse and  
keyboard are large difficulties.

- Gregory wanted to reformat the  
text &

- Got It problem

- a) music does not stop  
if they draw a Got It msg.
- b).

[ Two kids - Gregory and a girl Amira  
Amira says I put it "truck" "fly"  
Gregory changes truck to "breath"  
which is more specific

Wednesday Aug 12

Personal

Chase Bank 935-9935 073219800

\$689.91

To clear

card \$25.00 %

\*2328 \$186.27

ATM \$200.00

908

\*2329 passport services \$40.00

Kimini - need to do something to prevent kids from going on before they finish a Rebus message because sometimes the kids try to cancel doing a hard one and just move on to start others.

KidCoche

Gateway 2000 800-846-4208

~~104~~

~~Anykey keyboards~~

~~299.00~~

~~49.00~~

~~CenterCom 8 port minis~~

~~\$69.00~~

~~1 104 keyboard~~

~~235.00~~

~~39.00~~

~~\$157.00~~

Tech  
Support

PC Connection

56987

Deluxe 104 keyboard

\$17.95

10pt Zip disks

119.95

3 pack 2GB \$299.95

3Com Office 8 port hub

\$79.00

order #212 17663

\$255.50

19.70 *Amiga*

EXHIBIT 40

Capitol One 1-800-608-5227

\$0.00 \$500.00 available

} Personal

Ray Fitzgerald 704-3400

Sharon Roberts 908-217-1396

} Intelligent

Tom Gallagher (203) 329-1160

You don't know Jack

Jack the Net Show

} KidCode

Intellect

Lucy - Kaye Insurance

did you make payment D&O?

I asked Matt to delay w/ it.

To unzip DBChess use

pkunzip ~~etc~~ db819C -D-N

KidCode / chess prog.